STEP
Trailblazer
Solution Enablement

AUTOMOTIVE QUICK START GUIDE

STEP Automotive 9.0 MP2

StiboSystems

StiboSystems

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STEP Automotive Quick Start Guide Introduction

This guide provides an introduction to the STEP Automotive solution available in STEP 8.2 and later versions. It covers the necessary actions an admin user must take to set up the solution, as well as providing an overview of the end user functionality that is provided with the solution after Easy Setup actions for one or more automotive standards have been completed by an admin.

The STEP Automotive solution supports the AutoCare, TecDoc, and NAPA standard formats. The standards are individually licensed, so you will not be able to access all of them on a system unless the specific license has been applied. To purchase licenses for additional standards, contact your Stibo Systems account manager.

The setup and end user functionalities are the same, regardless of the standard being applied. This guide will often use the AutoCare standard as an example, but the same information is applicable for the NAPA and TecDoc standards.

Note: Setup and use of application editing and mapping functionalities are considered advanced functions that are outside the scope of this guide. In addition, details on the specific data models for each standard are not covered in this guide.

Patch Recipe and Compatibility

The Automotive 9.0 MP2 add-on can be installed with the following recipe:

`to:automotive/7.0/automotive-7.0.12.spr`

Note: The above recipe is only compatible with the STEP 9.0 MP4 baseline (`to:step/trailblazer/step-9.0-mp4.spr`).

Important: Once an Automotive add-on is installed to a base STEP system, the base system should not be upgraded without upgrading the Automotive add-on at the same time. Additionally, when upgrading any base STEP system that has any Automotive add-on installed, both install recipes must be prepared at the same time.

For assistance in applying the patch to systems with extensions or additional add-on components, contact Stibo Systems Technical Services.

Supported Versions and Formats

The following are the supported import and export versions and/or formats for the various automotive standards.

Note: If there is only one format for the data type and the format itself is not versioned, 'Format is not versioned' is listed.

Generic

- **Asset Exporter:** Format is not versioned (generic exporter not specific to any standard).

AutoCare

- **ACES Exporter:** ACES 3.0 and 3.2
- **ACES Importer:** All ACES 3.X versions are supported for import, though all are validated against the 3.2 schema.

  Note: Changes between the various 3.X versions are minimal so in most cases this will result in a successful import. However, the schema for the 'ApprovedFor' element in the header changed with 3.2 so attempting to load a file for an earlier version that includes the 'ApprovedFor' tag will fail schema validation. This can be corrected by removing the 'ApprovedFor' element from the header, or manually updating the version to be 3.2.

- **Brand Table Importer:** All three flat file formats are supported (original, with revision date, and with sub-brands and revision date)
- **PAdb Importer:** ASCII
- **PCdb Importer:** ASCII
- **PIES Exporter:** PIES 6.5
- **PIES Importer:** PIES 6.5
- **Qdb Importer:** ASCII
- **VCdb Importer:** ASCII

NAPA

- **Application Exporter:** Format is not versioned
- **Application Importer:** Format is not versioned
- **Asset Reference Exporter:** Format is not versioned
- **MPCC / Attribute Exporter:** Format is not versioned
- **MPCC / Attribute Importer:** Format is not versioned
- **Interchange Exporter:** Format is not versioned

- **Interchange Importer:** Format is not versioned
- **Translation Importer:** Format is not versioned
- **Valid Vehicles Importer:** Format is not versioned

TecDoc

- **Reference Data Importer:** TAF 2.4 using either the ZIP or 7z formats
- **Supplier Data Exporter:** TAF 2.4
- **Supplier Data Importer:** TAF 2.4 using either the ZIP or 7z formats

Quick Start Setup for Admins

This section addresses the necessary actions an admin user must take to set up the automotive solution.

Prerequisites

It is assumed that the admin user has knowledge of STEP administrative functions and experience working in System Setup, including creating and editing workflows, business rules, Web UIs, attributes, etc. Therefore, this guide does not provide introductory material for these concepts and instead targets only the specific information needed for a knowledgeable STEP admin user to complete the Automotive solution setup. If additional information is needed, please see the **STEP Online Help**.

Important: This guide will often use the AutoCare standard as an example, but the same information is applicable for the NAPA and TecDoc standards.

Quick Start Setup Actions

Below are the required setup actions:

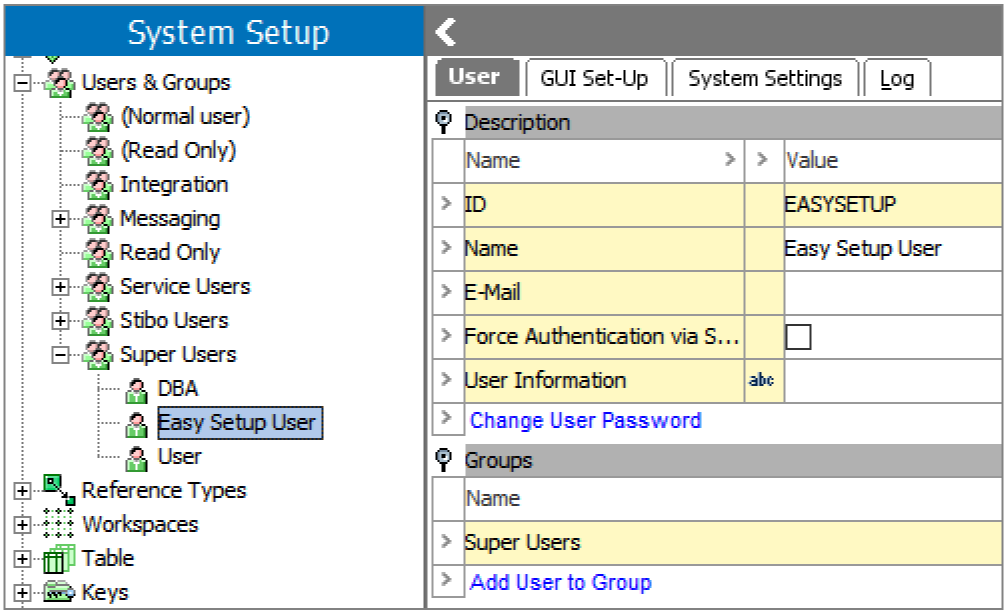
1. Create Easy Setup User
2. Run Easy Setup of Import Flow Process
3. Run Easy Setup of Standards
4. Update IIEP Users and Queues
5. Update Delete Status Attribute and Delta Calculation Method in Import Workflows
6. Update Assignees in Import Workflows
7. Determine Validation Error Handling for Each Import
8. Specify an Application Naming Convention
9. Specify Complete Replacement Handling (ACES Import Workflow Only)
10. Add Country Codes to Approved for LOV (ACES Export Only)
11. Update Web UI Configurations
12. Other Considerations

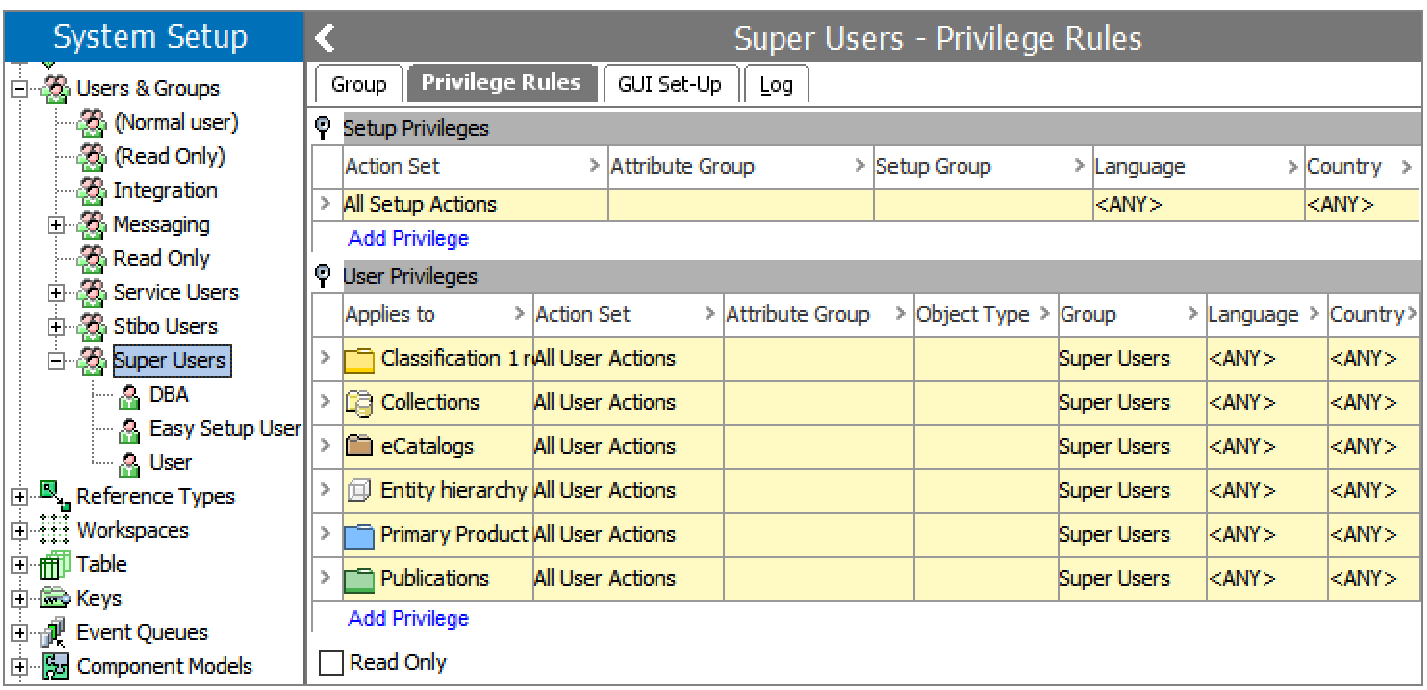
Important: The setup actions must be performed in the order in which they are listed. All steps are considered required for the setup, unless explicitly stated otherwise.

1. Create Easy Setup User

This setup action is not required, but is strongly recommended. The solution includes functionality to auto-create all objects, references, attributes, workflows, etc., required to support the solution. The user executing the auto-create functions (described in subsequent steps) will be recorded as the creator / editor of those objects in STEP. It is therefore recommended that a new user be created for this purpose, so that an accurate audit trail is in place.

The user must be created as a Super User without any privilege restrictions. For example:





Additional information on managing users and privileges is available in the **STEP Online Help**.

The admin user managing the initial setup of the system should log in using this newly created user before carrying out the following actions.

2. Run Easy Setup of Import Flow Process

The Import Flow Process is the framework for importing automotive files across any of the standards. It only needs to be run once per system, regardless of how many standards will be implemented. However, it must be run *prior to* any of the Easy Setup functions for the standards.

Incoming automotive data files are modeled as entities in STEP. This setup action creates the necessary entity object types, as well as the attributes that will be available on the objects.

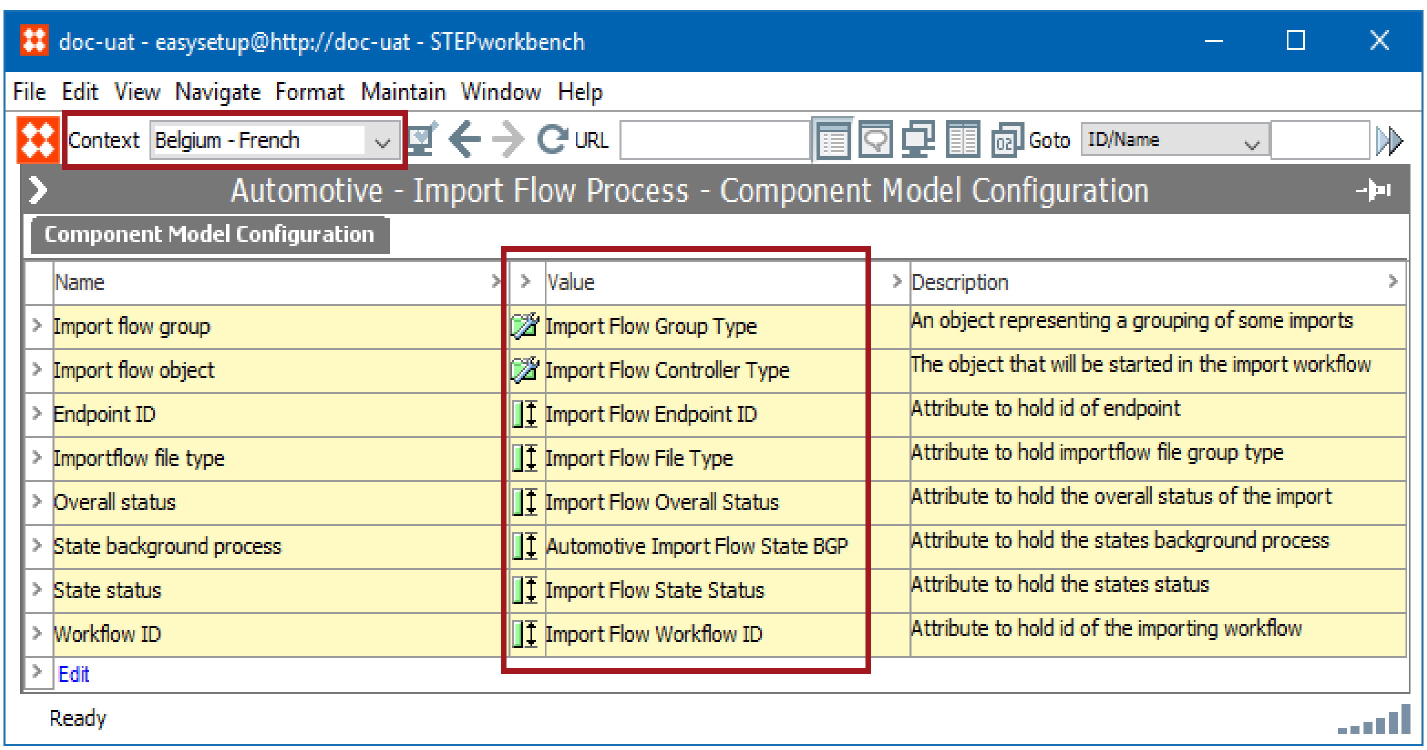
Configuration Steps

Below are the steps necessary to complete Easy Setup of the Import Flow Process:

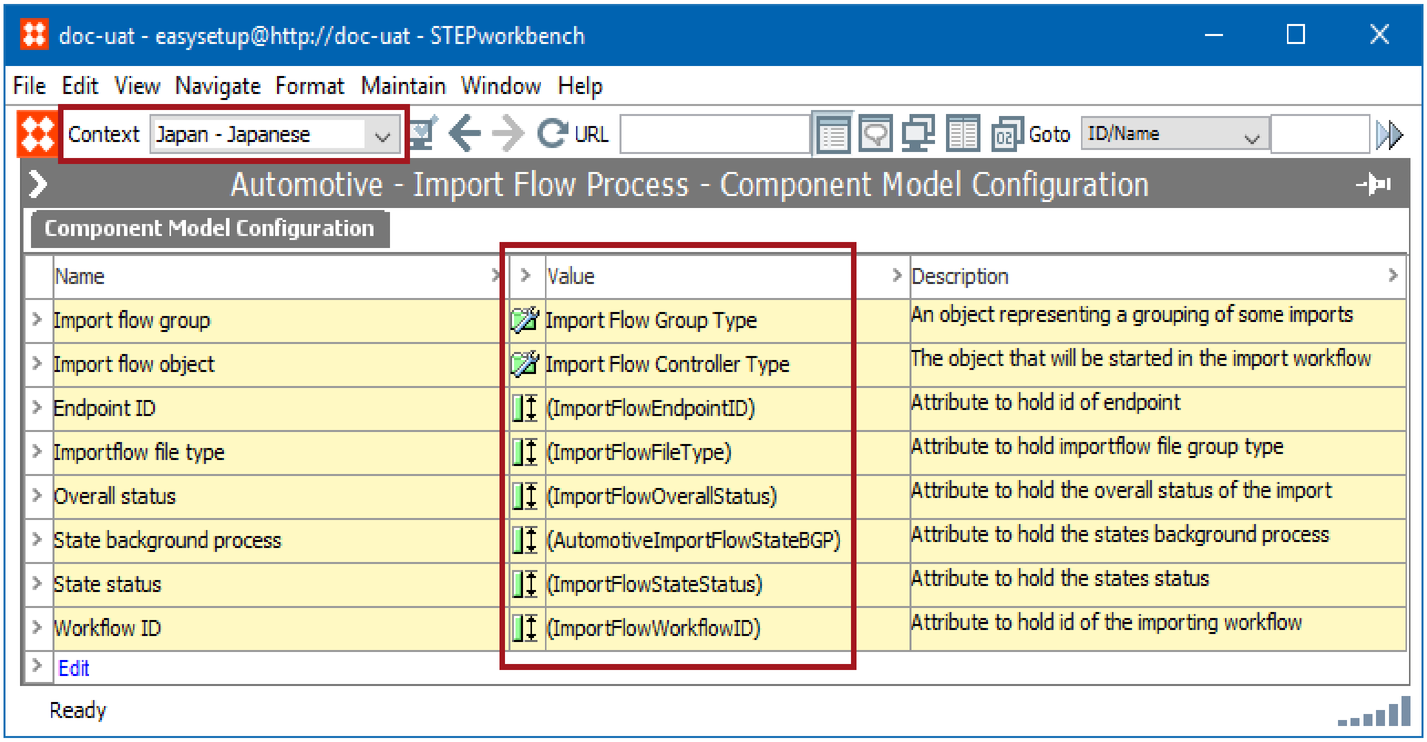
1. If an Easy Setup user will be utilized for maintaining a proper audit trail, log in to STEP as that user.
2. Go to **Context**, and select the most commonly used context option from the dropdown.

   When Easy Setup actions are run, any object and/or attributes created will be populated with a respective name only for the context selected when the actions are run. Therefore, when a different context is selected, the default object and/or attribute name will display with parentheses.

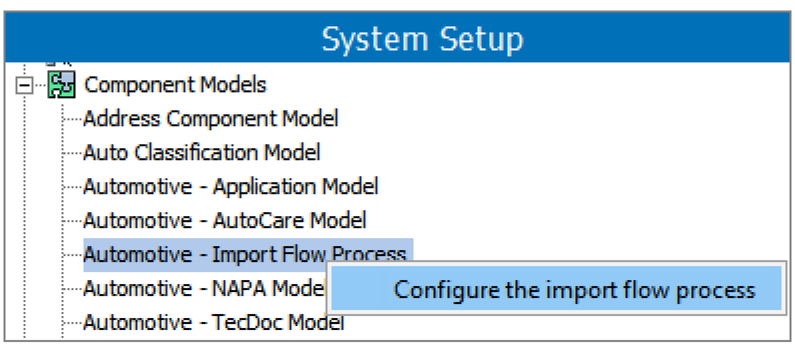
   In the example below, the Automotive - Import Flow Process component model is displayed using with the same context used when the Easy Setup actions were run for the component.



   Below, the same component model is displayed, but the context has been changed, and the attribute value names display with parentheses.



3. Go to **System Setup** > **Component Models** > **Automotive - Import Flow Process**.
4. Right-click **Automotive - Import Flow Process** > Select **Configure the import flow process**.



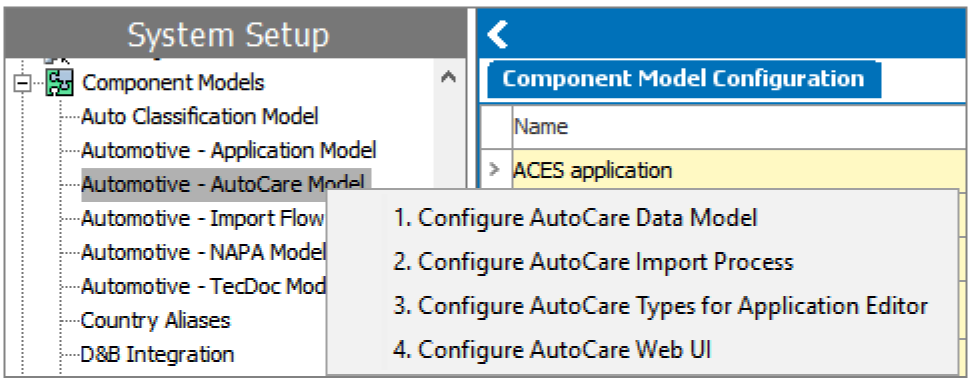
5. A dialog will display stating the changes that will be made by running the process. If you would like to record the changes, you may do so by taking a screenshot of the dialog. When you are ready to start the configuration process, click the **OK** button.
6. The system will create all necessary elements to support the Import Flow Process. This will typically take less than a minute, and when complete, a dialog will display listing each change that was made. Click the **OK** button to close the dialog and resume normal activities on the system.

3. Run Easy Setup of Standards

Each standard has a component model designed to handle the creation of all elements necessary to support the specific standard's core functionality. Regardless of the standard being set up, each follows the same process and has the following four actions that must be run sequentially:

1. Configure Data Model
2. Configure Import Process
3. Configure Types for Application Editor
4. Configure Web UI

For example:



Note: If an object already exists on a system, running Easy Setup will not change it. Therefore, users can run Easy Setup as needed to deploy new functionality, without risk of disrupting or changing current processes. If manual changes have been made to an object following creation by Easy Setup, these changes are retained if setup is subsequently re-run. This also means that when enablement of new functionality requires changing the setup of an existing object, that change must be made manually on existing implementations (while Easy Setup can handle it automatically in new implementations). Because of this, it is important to pay attention to information included in patch notes and carry out any manual configurations needed to enable new functionality.

A brief description is provided below about what each of the four setup actions creates, with additional information available throughout this and the Quick Start for Users section of this guide.

1. **Configure Data Model:** Each standard has a supporting data model consisting of object types / hierarchies, attributes, LOVs, and references. This setup action creates the elements needed to support the data model.
2. **Configure Import Process:** Each standard has multiple integration endpoints, workflows, business rules, and ID Structures used to support each type of import file.
    - In AutoCare, these are: ACES, PIES, Brand, PAdb, PCdb, Qdb, and VCdb.
    - In TecDoc, these are: Reference and Supplier.
    - In NAPA, these are: Application, Attribute, Interchange, Translation, and Vehicle.

Following configuration of the import process, an inbound integration endpoint and corresponding workflow (with business rules) will be created for each import type supported by the applicable standard, as well as hotfolders for each of the files to be placed into for processing.

Important: If part and application data are imported into STEP without using the proper ID structures, then errors will occur. Prior to importing, review the **ID Structures in Importers** topic within the **Automotive Reference Guide**.

In addition, a Web UI will be created that is pre-configured to provide access to the workflows used to manage the imports after the files are picked up by the hotfolders.

3. **Configure Types for Application Editor:** An application lookup / editor is provided for each standard, which also contains support for mapping application records between the standards or from your own model to one or more standard models. This step of the setup populates the component model (Automotive - Application Model) that supports the mapping of application records between the various models, though additional configuration is required beyond this to enable the mapper functionality.

Note: The population of this component model also drives the functionality of the Web UI screens that are available for application search and editing features, so this step is required to support application search functionality in Web UI (even if application record editing or mapping capabilities are not required).

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4. **Configure Web UI:** A starting configuration for application search and edit functionality is provided for each standard, via three screens that are configured in this setup action. Additional configuration of the Web UI is required to make use of the created screens, which is described later in this guide. When running this setup action, you must select a Web UI for the screens to be created within. During the previous Step 2 (Configure Import Process) a Web UI to manage imports for the standard is created. The screens can be added to that Web UI, or to any other Web UI. If multiple models are implemented, it may be useful to have application search / edit / mapping functions for all models available in a single Web UI, hence the option to choose which Web UI to create the screens in.

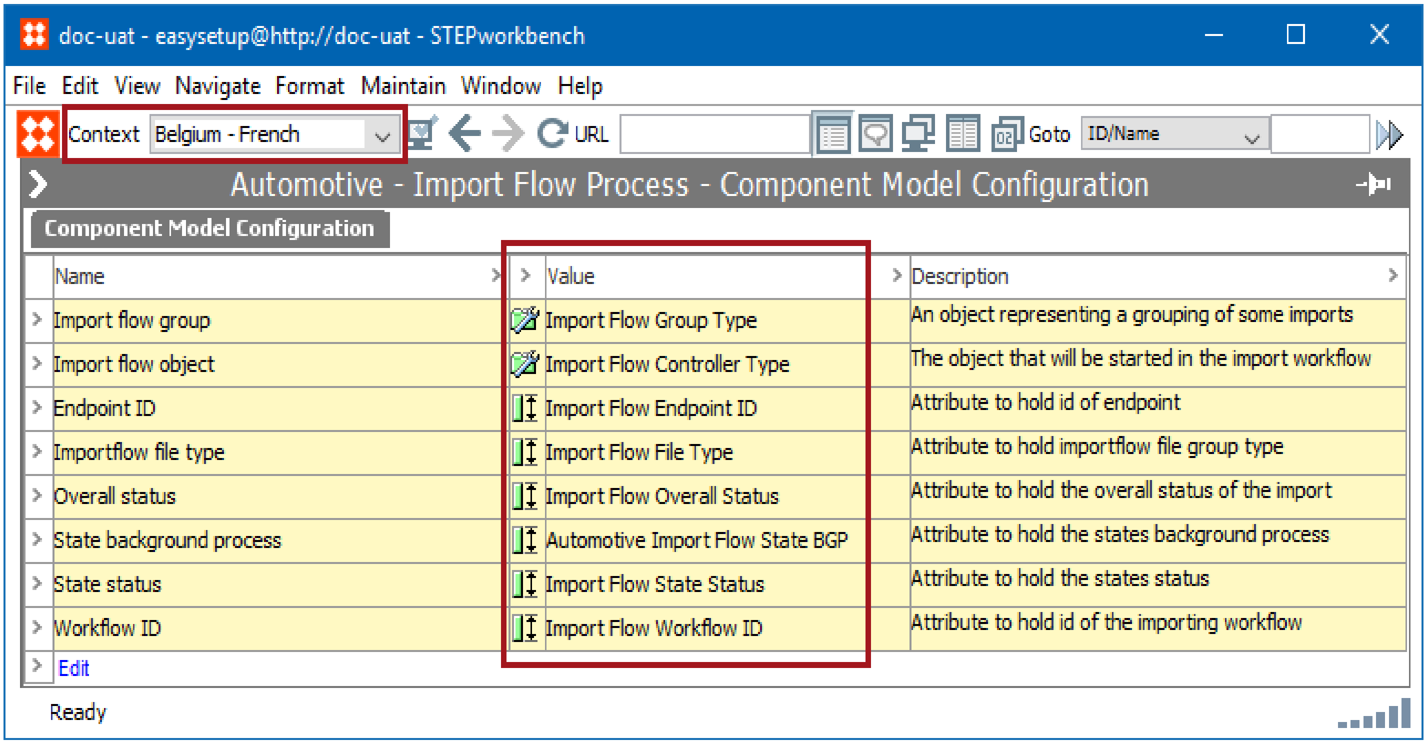
Configuration Steps

The following steps describe how to configure any of the standards using the Easy Setup method.

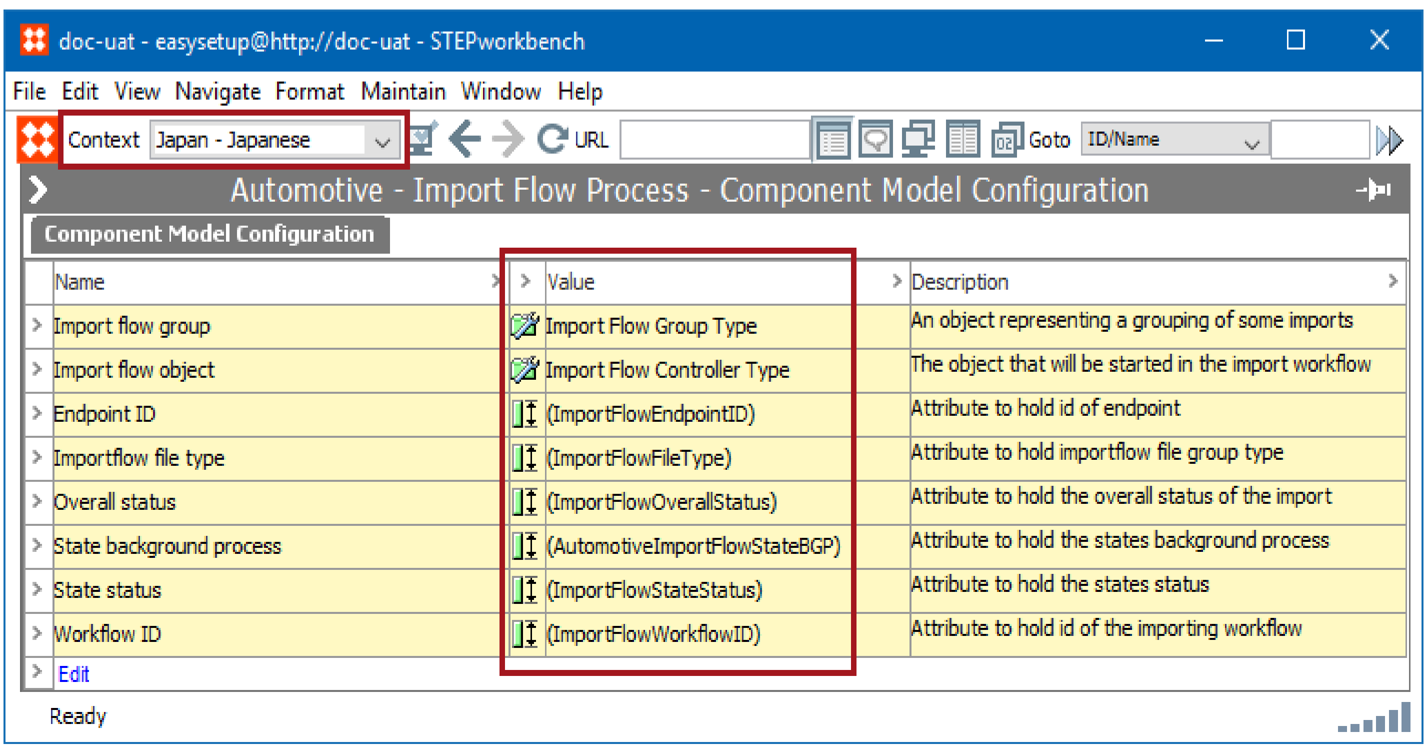
1. If an Easy Setup user will be utilized for maintaining a proper audit trail, log in to STEP as that user.
2. Go to **Context**, and select the most commonly used context option from the dropdown.

   When Easy Setup actions are run, any object and/or attributes created will be populated with a respective name only for the context selected when the actions are run. Therefore, when a different context is selected, the default object and/or attribute name will display with parentheses.

   In the example below, the Automotive - Import Flow Process component model is displayed using with the same context used when the Easy Setup actions were run for the component.



Below, the same component model is displayed, but the context has been changed, and the attribute value names display with parentheses.



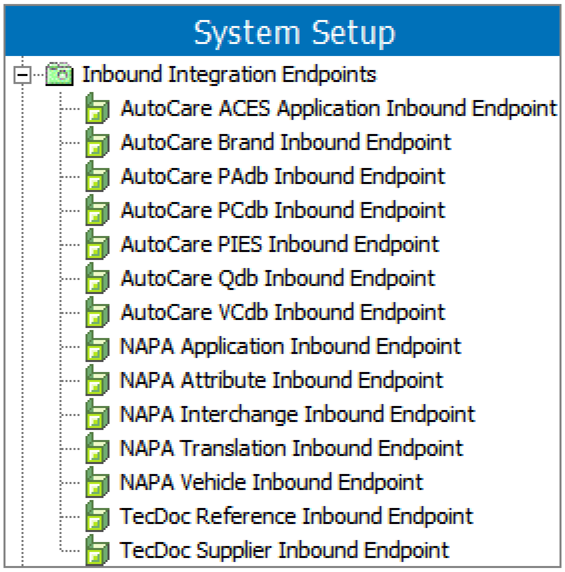
3. Go to **System Setup** > **Component Models** > **Automotive - [Standard] Model** (e.g., Automotive - AutoCare Model).
4. Right-click on the applicable component model and select each step (1 through 4) in sequence. In each case, a dialog will display stating the changes that will be made by running the process. If you would like to record the changes, you may do so by taking a screenshot of the dialog.
5. When you are ready to start the configuration process, click the **OK** button. The system will create all necessary elements to support the applicable process. This will typically take less than a minute for each of the four steps, and when complete, a dialog will display listing each change that was made.
6. Click the **OK** button to close the dialog and resume normal activities on the system.

The above can be repeated for each standard, as applicable. It is also possible to continue through the setup actions for a single standard, and return to this setup action for an additional standard later. In other words, there are no dependencies between the standards and while the setup steps within a standard must be followed sequentially, the setup process can be independently carried out per standard.

7. If an Easy Setup user is being utilized for maintaining a proper audit trail, log out of STEP as that user.

4. Update IIEP Users and Queues

Each file type supported by the solution has a corresponding inbound integration endpoint. Each endpoint is created with the user who ran the "2. [Standard] Configure Import Process" setup action (within the Easy Setup for the standard) as the executing user of the endpoint. In addition, each endpoint is set up to run using the default endpoint process queue (In). The endpoints can be found under the Inbound Integration Endpoints node on the System Setup tab:

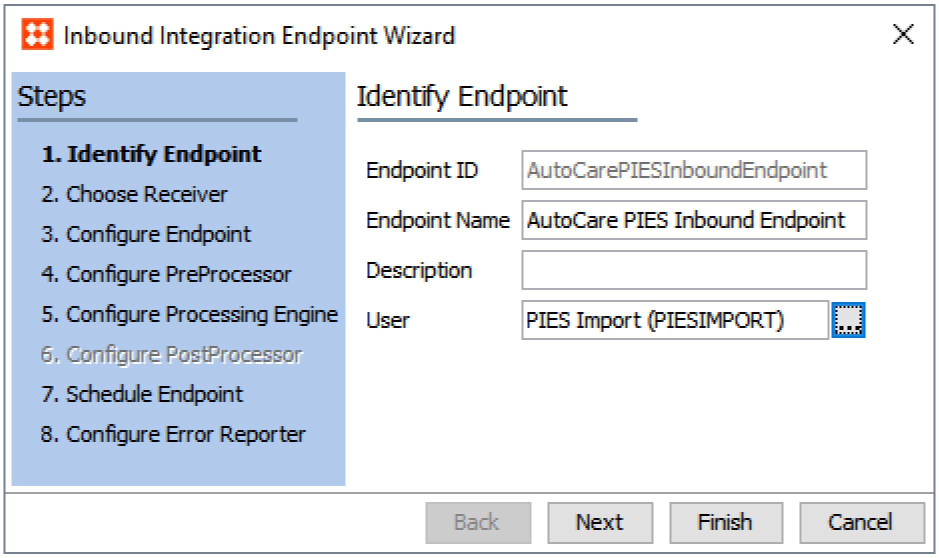


Configuration Steps

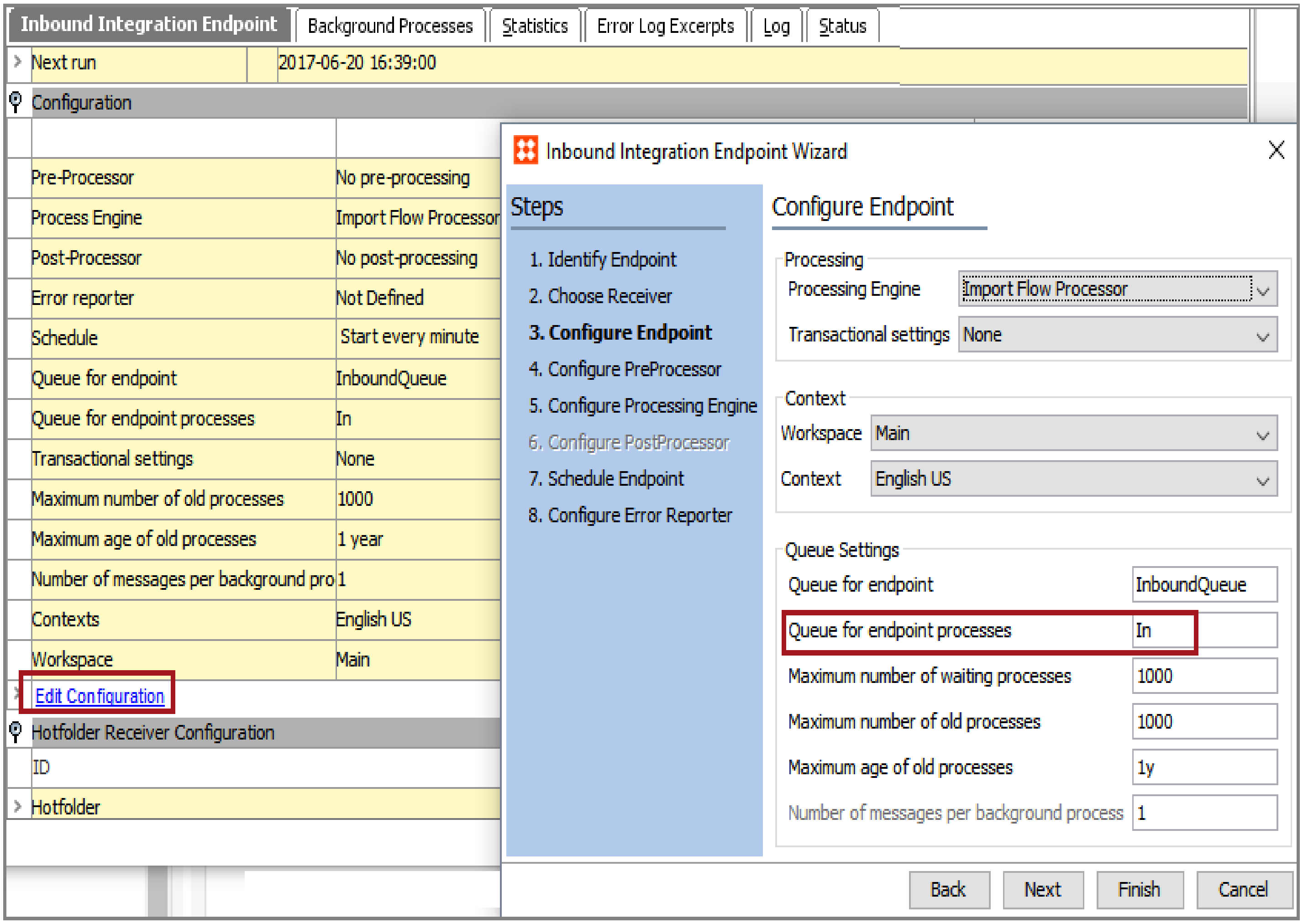
While not strictly required, it is recommended to adjust the configuration of each endpoint as follows:

1. It is recommended that a unique user be assigned to each endpoint for auditing purposes. To update the user for each endpoint, right-click on the endpoint and select **Edit Inbound Integration Endpoint**. This will open the first step of the integration endpoint wizard, which contains a **User** parameter.

   For example, a 'PIES Import' user could be created and selected as the user for the AutoCare PIES Inbound Endpoint.



2. Each implementation should determine how queues should be configured for the system. High priority endpoints and those with long running processes should typically have their own queue. To adjust the queue configuration on any endpoint, select the endpoint and click the **Edit Configuration** link. Then enter a value in the **Queue for endpoint processes** parameter. It is advisable to name the queue something comparable to the endpoint name so that the queue can be clearly identified by the system administrators.



Additional information on creating users, editing endpoints, and recommendations for endpoint queue settings can be found in the **Working with Users** topic within the **Users and Groups** section of the **STEP Online Help**, and the **Maintaining an Inbound Integration Endpoint** and the **IIEP - Configure Endpoint** topics within the **Inbound Integration Endpoints** section of the **STEP Online Help**.

5. Update Delete Status Attribute and Delta Calculation Method in Import Workflows

Note: Setup actions 5 - 8 are all carried out within the workflows and do not need to be done sequentially. Therefore, you can make all changes within a given workflow simultaneously to avoid opening and editing each workflow repeatedly.

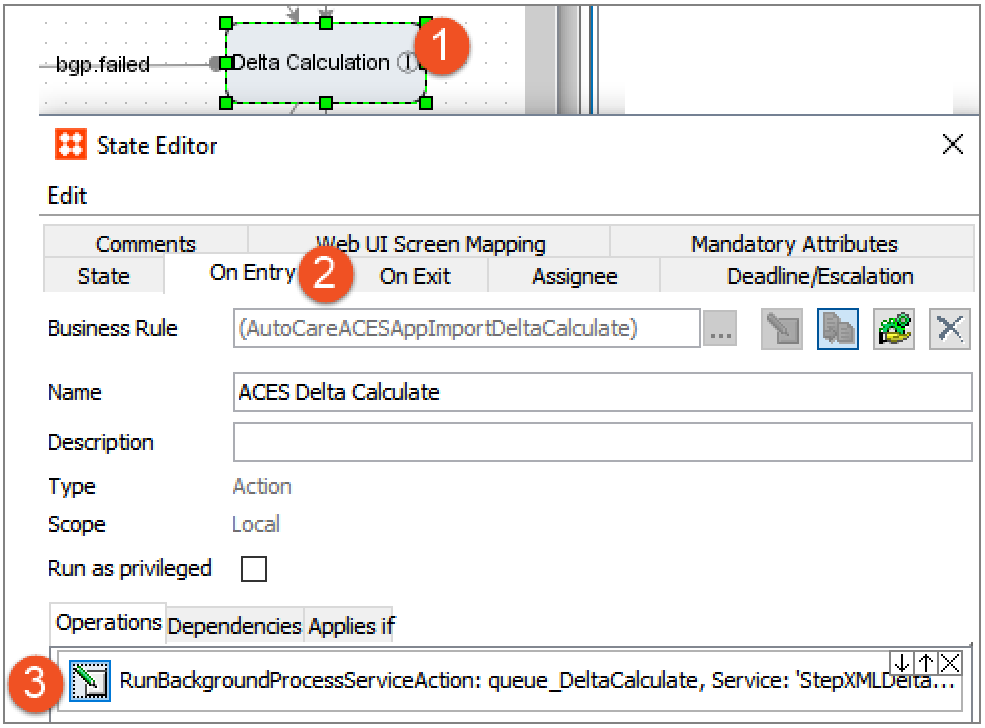
Each workflow has a Delta Calculation state where the system evaluates the content of the import file as compared to the content of the database, or against the previously loaded file of that type. For data that is determined to require deletion, the importer does not actually delete the data, but instead writes to an attribute that the data *should* be deleted. This allows each customer to determine their own strategy for managing deletions, such as processing the deletions via a workflow.

In order to enable the system to indicate data for deletion, the attribute to be used to hold the deletion information must be specified. A single attribute can be used for all imports, or unique attributes can be created to store deletion status for varying objects or imports. In either case, when an importer determines that data should be deleted, it writes 'true' in the attribute indicated in the **Delete status attribute** of the delta calculation service of that importer. Additionally, the system must be configured to process imports by comparing the incoming file against the database, or by comparing it against the previously loaded file of that type. For more information about implementing one or more delete status attributes (also known as change flags), see the **Business Action: Set Import Status Attributes** topic within the **Automotive Business Rule Plugins** section of the **STEP Automotive Reference Guide**.

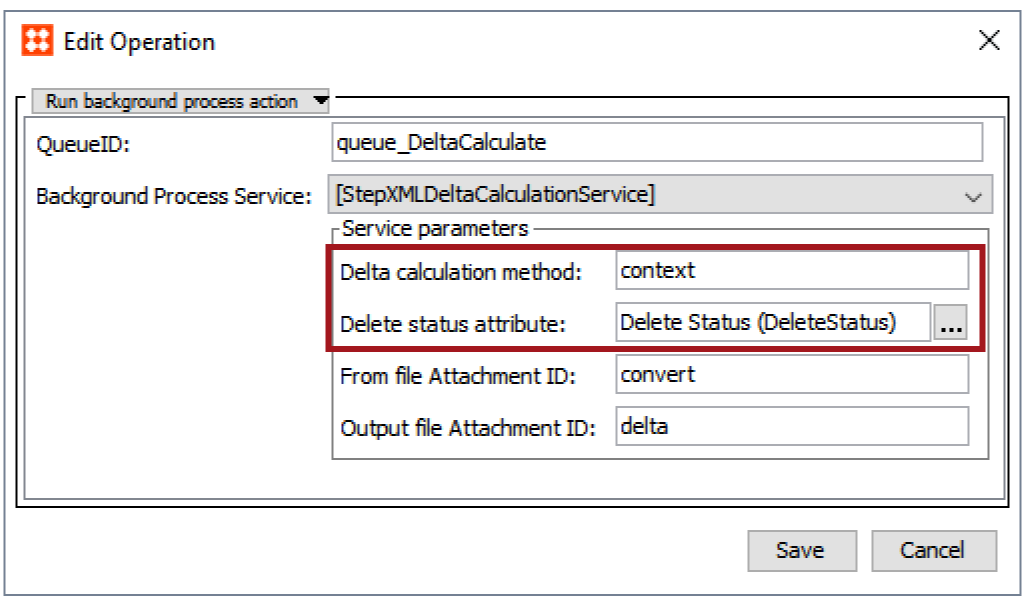
Configuration Steps

Below are the steps necessary to specify the delta calculation method and the delete status attribute in any import workflow:

1. Create an attribute (or verify that one exists) that can be used to store the delete status of an object. The attribute should be valid for the object(s) being managed by the import. For example, an attribute used in the AutoCare ACES Application Importer must be valid on ACES Application objects. Alternatively, an attribute used in the AutoCare PCdb Importer must be valid on all nodes in the PCdb classification hierarchy.
2. Select a workflow, right-click, and select **Edit STEP Workflow**.
3. Double click on the **Delta Calculation** state to open the State Editor. Select the **On Entry** tab and click the Edit icon on the existing business rule.



4. In the Edit Operation dialog, write 'file' or 'context' in the **Delta calculation method** parameter, and click the ellipsis button on the **Delete status attribute** parameter to select an attribute that should be used to store deletion status.



Delta calculation methods:

- **context:** Compares the data in the input file against the data in the database. It is recommended to use this option only as needed, which is when data is managed outside of the import process, or when import files of that type contain varying data sets. Oftentimes this method is required for supplier data. This method takes longer to process, but ensures accuracy when data management strictly via import cannot be guaranteed, or when datasets vary within the file type.

For example, because NAPA application and interchange files come from multiple sources, it is required that the files are imported using 'context' method for delta calculation so that the data is compared against the database instead of the previously imported file. For this reason, Easy Setup configures the 'Delta calculation method' parameter with 'context' for the NAPA Application Import and NAPA Interchange Import workflows.

Additionally, PIES imports may be received from various suppliers providing data for different sets of parts. If the context method is used, each file is compared to the data in the database and any data not in the latest PIES file will be marked for deletion, which is not desired when different data sets are being used.

Important: The context method is required for the following: AutoCare ACES Import Workflow (because of the ACES Complete Replacement functionality), NAPA Application Import workflow, and NAPA Interchange Import workflow.

- **file:** Compares the data in the input file against the data in the last loaded file of the same type. It is recommended to use this option whenever possible as it has a performance advantage over the context method. The file method is suitable for any format where the data is managed strictly via import and contains consistent data sets, as is often the case for reference data.

Important: When using the 'file' delta calculation method, discarded files will not be used for delta calculations. The last loaded file must be retained for it to be used in delta calculation.

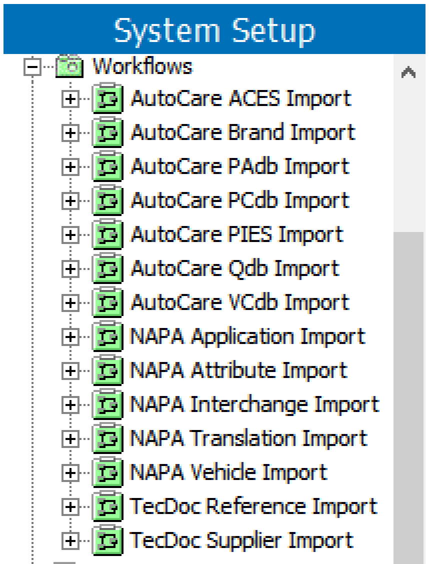
For example, a PCdb file always contains all data for the PCdb. If a part terminology is not present in the current file, it is because it has been removed from the PCdb. Using either the file or the context method would result in the missing part terminology being appropriately marked for deletion, but as the data set is consistent and usually only managed via import, the file method is preferred to take advantage of the faster processing time.

Important: The above action of setting the delete status attribute serves only to configure the attribute that will store the deletion. Each implementation should further determine a process for managing deletions for each import.

For more information on editing workflows and/or business rules, see the **Workflows** and **Business Rules** sections of the **STEP Online Help**.

6. Update Assignees in Import Workflows

Each import process has a corresponding workflow and all workflows are created with a default assignee of 'stepsys.' The workflows can be found under the Workflows node of the System Setup tab:



Each workflow must have the assignees updated to appropriate users or groups, either by defining a new default assignee for the workflow, or by removing the existing default and applying specific assignees per state.

Any users with the 'STEP Workflow Administrator' setup action as part of their privileges will be able to see and work with files in all states of the workflows. To quickly get up and running with the import functionality, it may be useful to add admin users to a group that contains this privilege, allowing those users to familiarize themselves with the workflow functionality while end user privileges are determined.

Note: The workflow administrator privilege can be applied to a setup group. If end users should be able to access data and take action in all states of the import workflows, the import workflows can be placed in a setup group and users who need to import the files can be added to a user group that contains the privilege applied to the applicable setup group. This will allow users to have full access to the import functionality, but only for those workflows in the setup group, leaving their access in other workflows unchanged.

For more information on workflow assignees, see the **Assignees in Workflows** topic within the **Workflows** section of the **STEP Online Help**.

For more information on user groups, privileges, and setup groups, see the **Users and Groups** section of the **STEP Online Help**.

7. Determine Validation Error Handling for Each Import

Each import has some basic format validations applied, and each implementation must determine how these should be handled. For more information about the Validation state, see the **Validation State** topic of the **Importing Automotive Data** section within the **Automotive Reference Guide**.

Otherwise, it is important to understand that the handling of validation errors can be configured by enabling / disabling the 'Continue on Error' parameter on the Validation state of each import workflow. By default, the 'Continue on Error' parameter is disabled.

For example, when reference data includes multiple files and a data point included in one is not present in a corresponding related file (e.g., a PCdb Codemaster file includes a position that is omitted from the Position file in the same PCdb), an error will be written to the execution report of the validation process. However, as reference data is typically managed by an outside source (e.g., AutoCare, TecDoc, or NAPA), it may be desired to import the data regardless of these types of errors. If so, the 'Continue on Error' parameter should be checked on the validation service. In this case the validations issues will still be written to the execution report, but all valid data will be converted and made available for the import process. If unchecked, validation errors will cause the import process to stop and will need to be corrected before the file can complete validation and continue on in the import process.

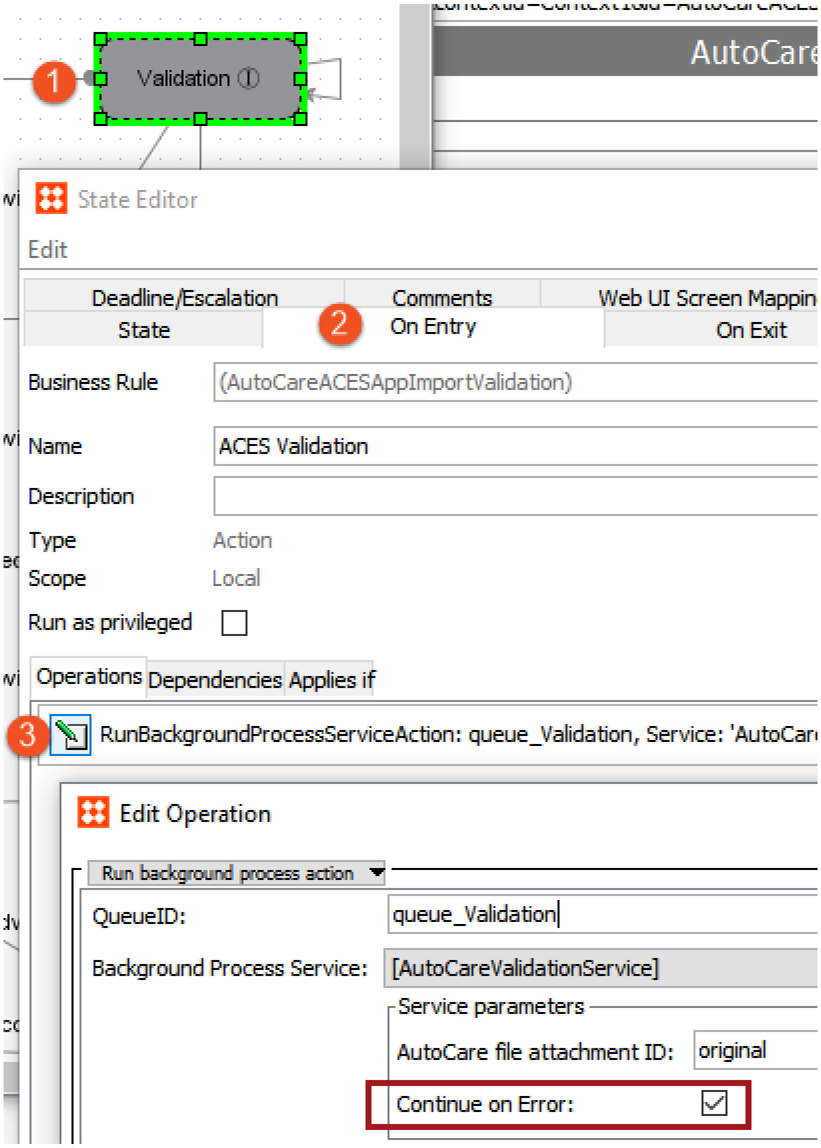
Additionally, consider when an importer has a strict file name validation rule (e.g., NAPA Vehicle and NAPA Translation Importers), should a bad file name stop the data from being imported? If so, then the parameter should remain disabled. If not, then the parameter should be enabled.

For more information on how this setting changes how a users actions when importing data, see the **Validation Error Handling** topic of the **Automotive Reference Guide**.

Enabling / Disabling Continue on Error

Below are the steps to enable / disable the 'Continue on Error' parameter:

1. When editing a workflow, double click on the **Validation** state to open the State Editor.
2. Select the **On Entry** tab and click the **Edit** button on the existing business rule.
3. Check or uncheck the **Continue on Error** setting as desired.



1
Validation
AutoCare
State Editor
Edit
Deadline/Escalation
Comments
Web UI Screen Mappin
State
2
On Entry
On Exit
Business Rule
(AutoCareACESAppImportValidation)
Name
ACES Validation
Description
Type
Action
Scope
Local
Run as privileged
Operations
Dependencies
Applies if
3
RunBackgroundProcessServiceAction: queue_Validation, Service: 'AutoCar
Edit Operation
Run background process action
QueueID:
queue_Validation
Background Process Service:
[AutoCareValidationService]
Service parameters
AutoCare file attachment ID:
original
Continue on Error:

8. Specify an Application Naming Convention

When applications are imported into STEP using the ACES, NAPA Application, and/or TecDoc Supplier importers, the STEP Name for applications is set to match the Part Name. However, you can specify a naming convention for the Application Name to be set automatically during the import process.

This is an optional configuration. If you do not have specific requirements around your application naming convention, this setup action can be skipped.

Prerequisites

Configuring a naming convention consists of creating a business action with the provided JavaScript, and editing the 'Import' state for the application Import workflow of each implemented standard created during the Easy Setup actions. For more information, see the **Business Action** section, and the **Workflows** section of the **STEP Online Help**.

Within this topic, two examples of JavaScript are provided that will change the Application Name to be [VehicleName PartName] or [Year Make Model]. The Vehicle Name is retrieved using a classification reference type specific to each standard. Below is a list of each standard and the classification reference used to retrieve the Vehicle Name.

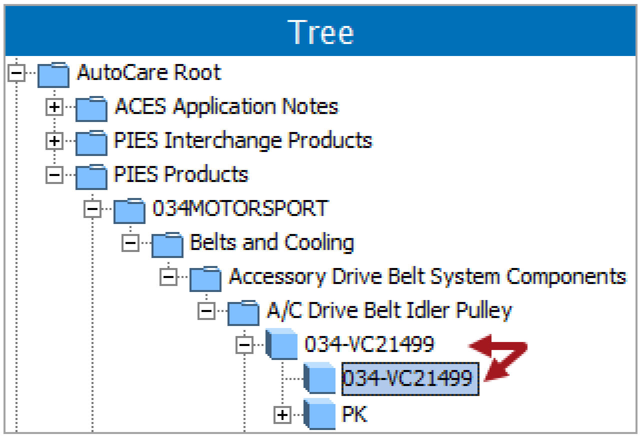
- **AutoCare:** ACES Application To Base Vehicle
- **NAPA:** Application To Year
- **TecDoc:** Supplier Article To Vehicle Type (PC)

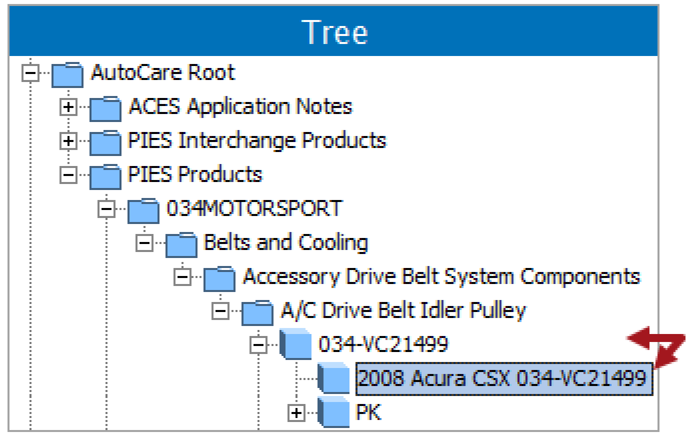
Important: If your data model does not use the classification references listed above, then the JavaScript provided in this topic must be modified to work as expected.

Results

When the JavaScript provided within this topic is used, instead of the Application Name matching the Part Name, the Application Name will be a result of the Vehicle Name and the Part Name.

In the example below, two screenshots of the same application are displayed. In the screenshot on the left, the Application Name (034-VC21499) is displayed beneath the Part with the same name. Whereas in the screenshot on the right, the Application Name (2008 Acura CSX 034-VC21499) has been automatically updated during import to include the AutoCare Base Vehicle Name (2008 Acura CSX) and Part Name (034-VC21499). The result is the application named displays below the Part Name '034-VC21499.'





Configuring an Application Naming Convention

To specify a more desirable application naming convention, a new business action to set the Application Name on import needs to be created, and the 'Import' state for the respective workflow must be edited to utilize the newly created business action.

Create a business action to set the Application Name on import

Below are the steps for creating a business action with the provided JavaScript to set the Application Name on import to [VehicleName PartName]. For more information on creating a business rule, see the **Creating a Business Rule or Library** topic of the **Business Rules** section of the **STEP Online Help**.

1. Create a business action using the 'app' variable that binds to 'Current Object.'
2. Add one of the following JavaScript options:

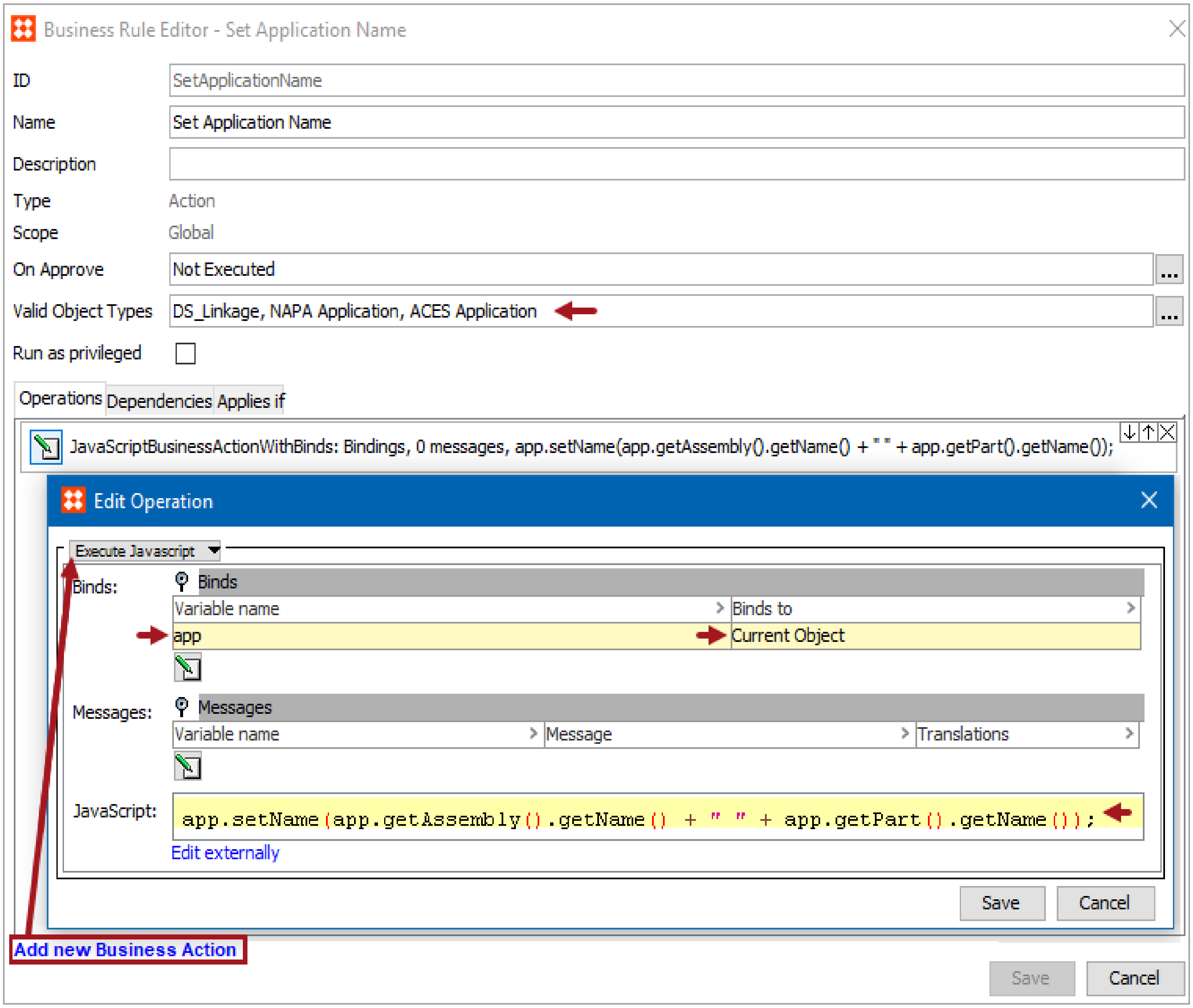
   Option A: Displays the [Year Make Model]

   ```
   app.setName(app.getAssembly().getName());
   ```

   Option B: Displays the [Year Make Model PartName]

   ```
   app.setName(app.getAssembly().getName() + " " + app.getPart().getName());
   ```

   In the example below, the business action (Set Application Name) is configured to work with the AutoCare, NAPA, and TecDoc standards by selecting the respective Valid Object Types.



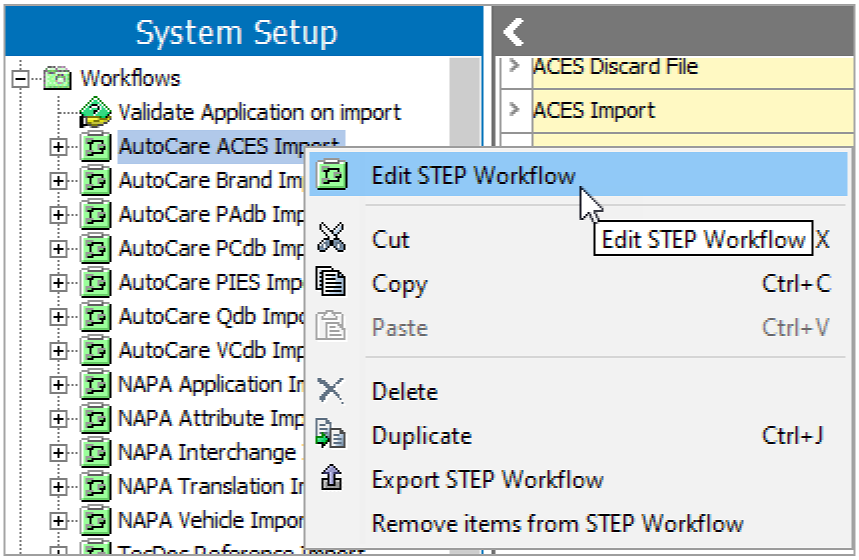
Add the business action to the 'Import' state of the respective Import Workflow

Once a business action has been created with JavaScript, as shown above, the business action needs to be added to the 'Import' state of the respective import workflow.

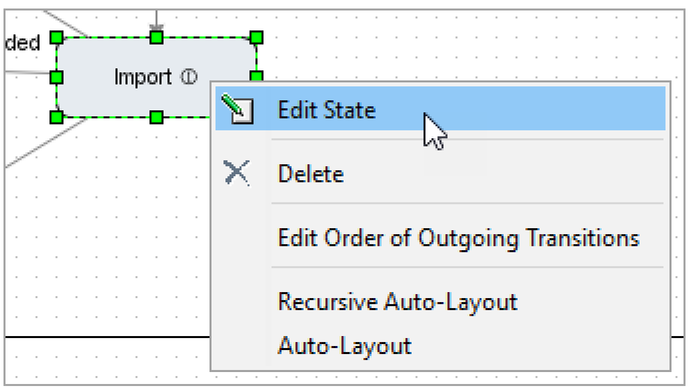
1. Go to System Setup > Workflows > Select the workflow used by the importer.

   For the business action example provided above, the configured valid object types allow for the business action to be used in one or more of the following import workflows: AutoCare ACES Import, NAPA Application Import, and TecDoc Supplier Import.

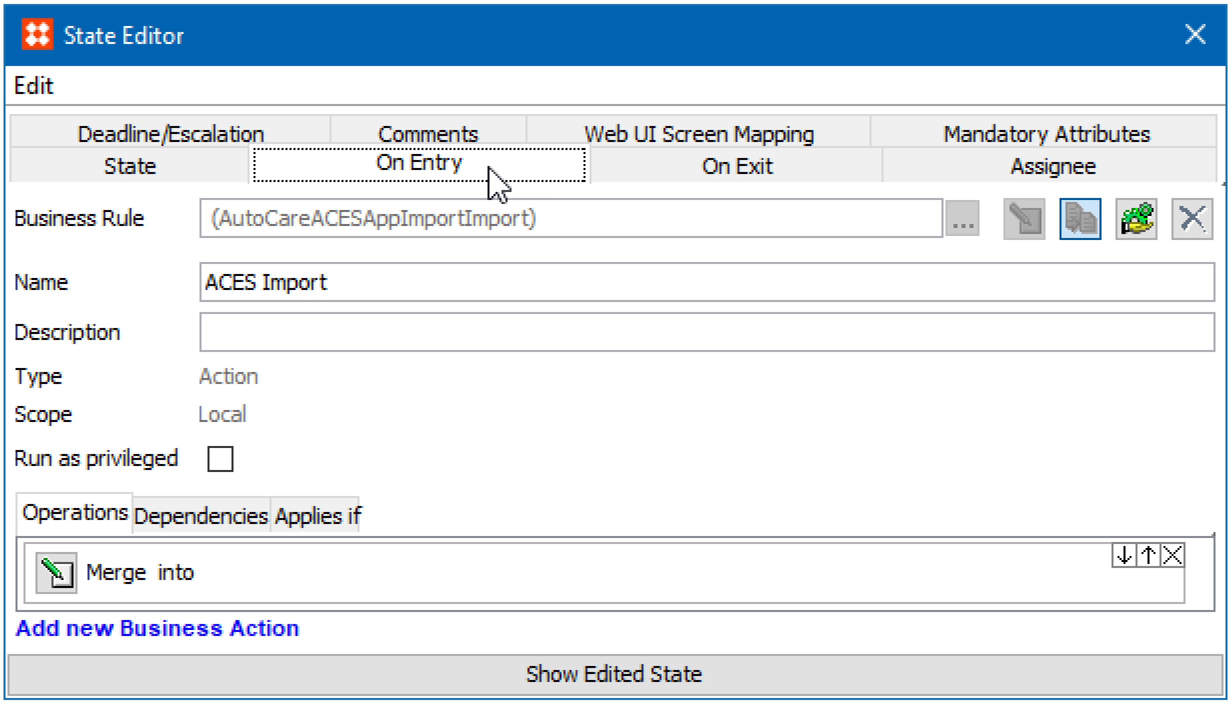
2. Right-click the respective workflow, select **Edit STEP Workflow**, and the STEP Workflow Designer will display.



3. Within the STEP Workflow Designer, right-click the **Import** state, select **Edit State**, and the State Editor will display.



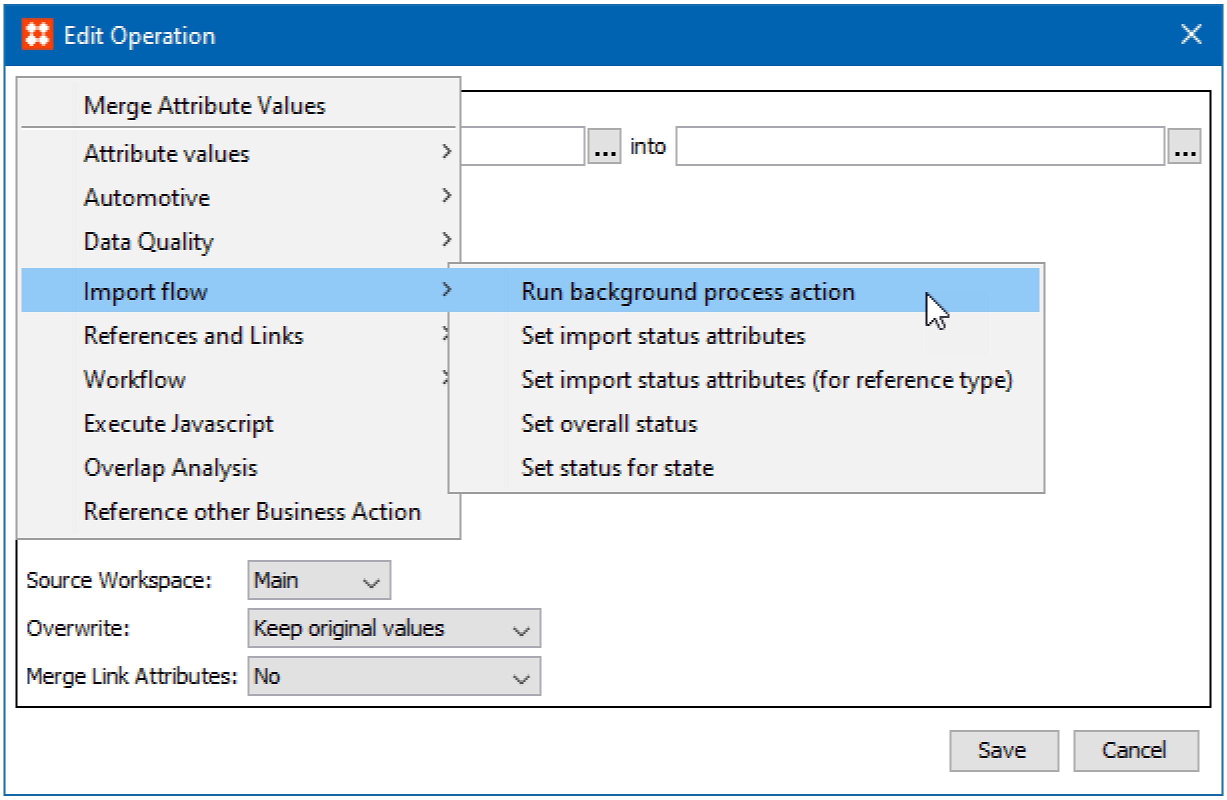
4. Within the State Editor, click the **On Entry** tab (as shown below).



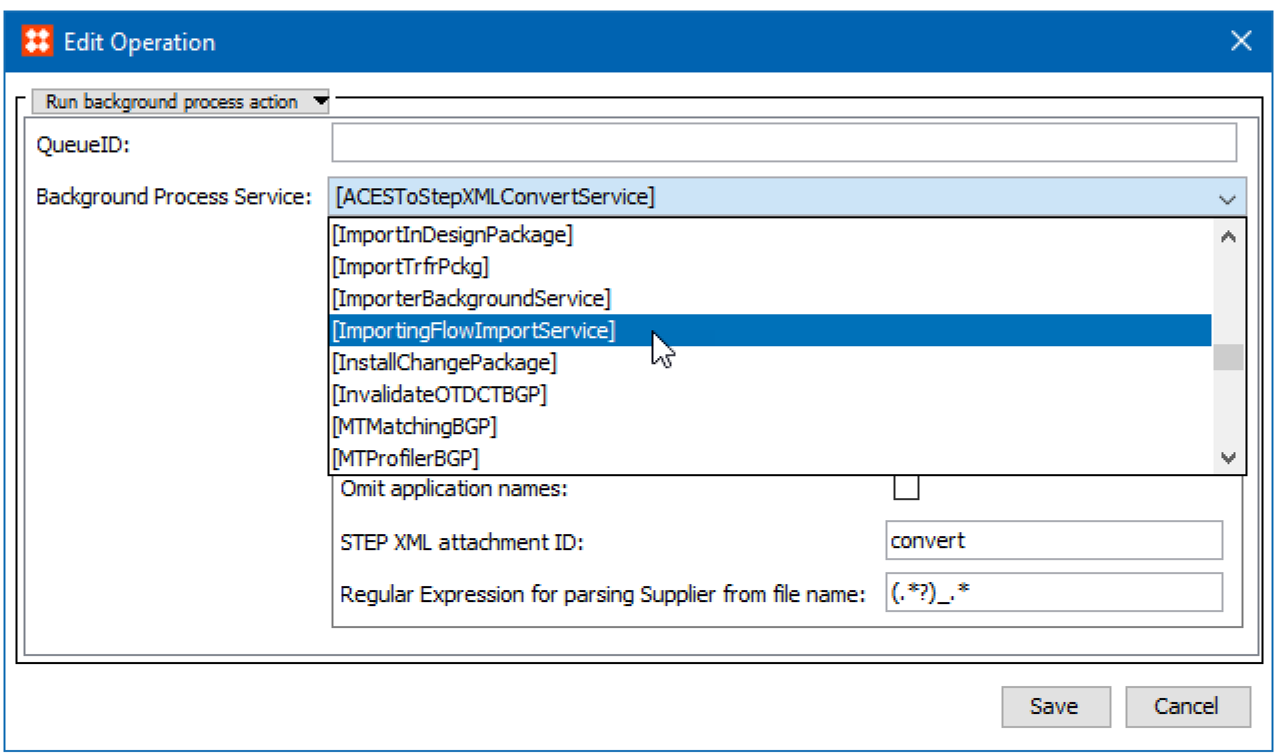
Note: If a business action using the 'Run background process action' has been previously added to this state, then click the **Edit Operation** button and skip to step 11 below.

---

5. Click the **Edit Operation** button, and the Edit Operation dialog will display.
6. Click the operation dropdown, hover over Import flow, and select the **Run background process action** (as shown below).

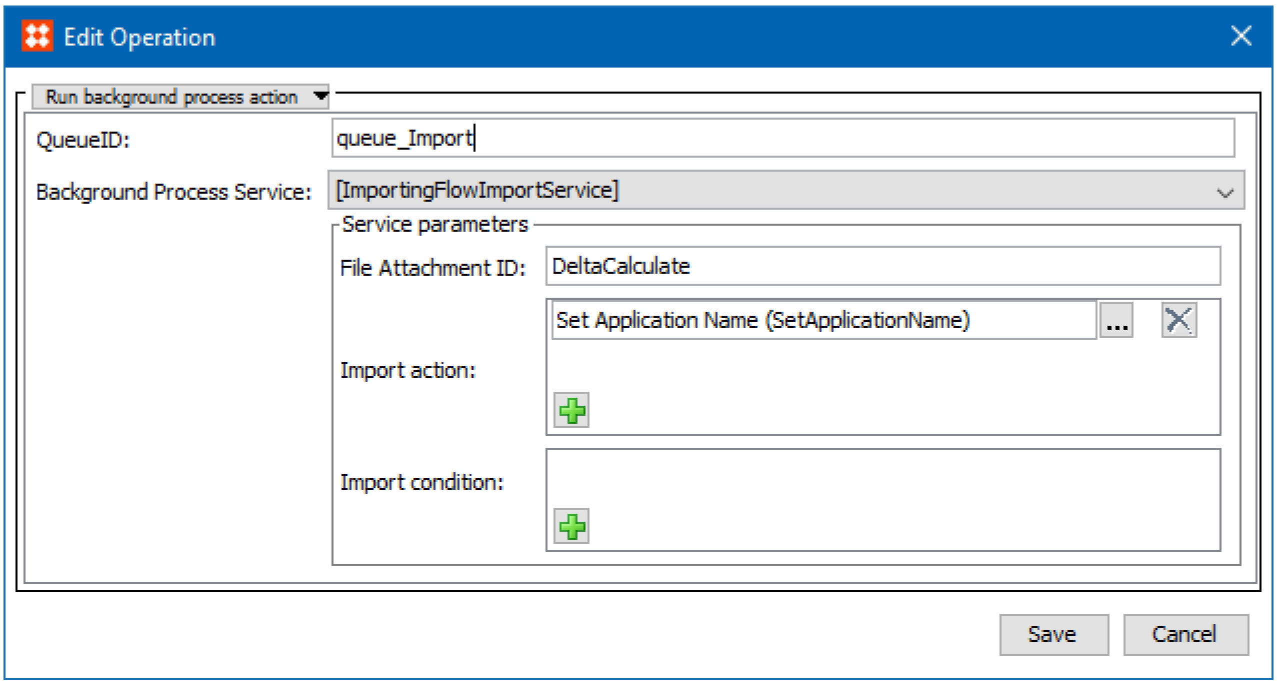


7. Use the Background Process Service parameter dropdown to select **[ImportingFlowImportService]**, as shown below.



8. Once the [ImportingFlowImportService] Background Process Service is selected, the Edit Operation dialog will display.
9. **QueueID:** Specify the queue in which the background process should run.
10. **File Attachment ID:** Must be populated with the same value found in the 'Output file Attachment ID' parameter of the Delta Calculation State.
11. Within the 'Import action' parameter, click the green icon ( ) to add an action.
12. Click the ellipsis button (...) to find and select the business action created to set Application Names on import.

    Below is an example of how the operation should look prior to saving.



13. Click the **Save** button, and close the STEP Workflow Designer.

9. Specify Complete Replacement Handling (ACES Import Workflow Only)

This setup action is only required if the AutoCare standard is being configured, and only needs to be carried out within the ACES functionality. If the AutoCare standard is not being configured, this setup action can be skipped.

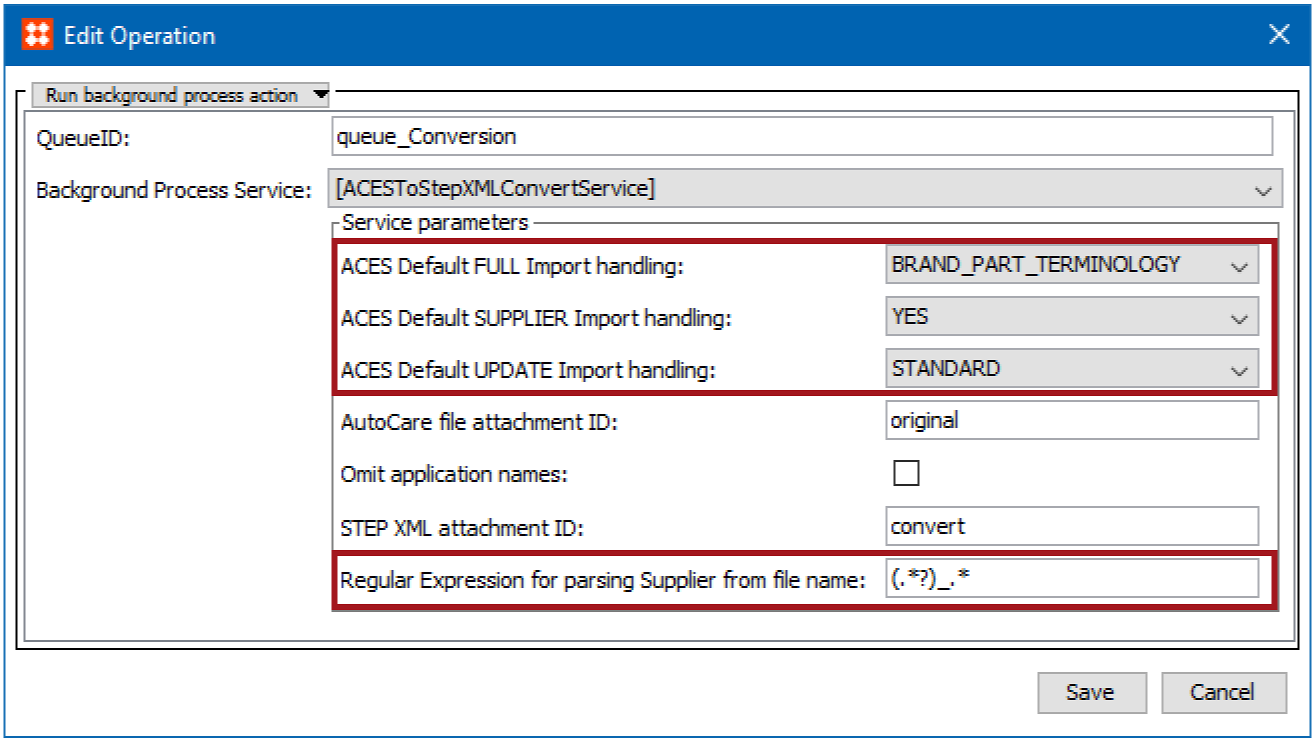
Important: ACES Complete Replacement functionality requires use of the context method, as described in setup action 5 within this guide.

The ACES standard specifies two file load types, indicated via the 'SubmissionType' field in the header: FULL and UPDATE. At a high level, FULL means "replace what is in the system with what is in this file" while UPDATE means "only update the records in the file, by adding or deleting as indicated in the action code on each record." In practice though, ACES files usually contain sets of application records for a brand, product line, part type, supplier, etc. so the replacement concepts need to be more granularly specified to indicate the level at which the applications should be replaced or updated.

Configuration Steps

To configure ACES application import handling:

1. Verify that the delete status attribute has been populated as described in step 5.
2. Double click on the **Conversion** state to open the State Editor. Select the **On Entry** tab and click the Edit icon on the existing business rule.
3. Populate each of the ACES parameters in the business rule. These parameters specify the global handling for ACES files across the full system and the options for population are defined below. Note that each Brand can also have unique handling applied, which is also further described below.

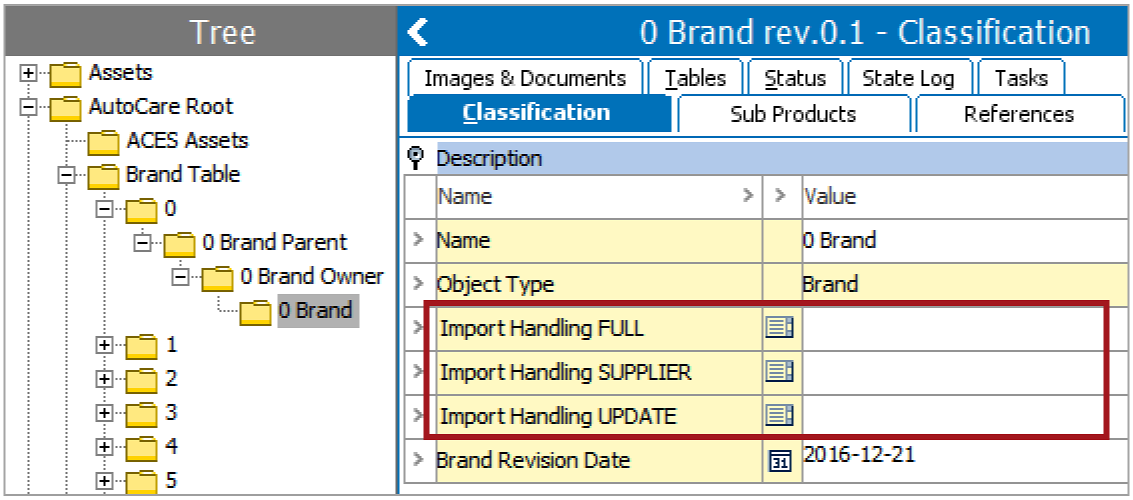


4. Optionally, populate the Regular Expression parameter (using the JavaScript regular expression format) to specify how Supplier should be extracted from the file name of ACES files. By default, the parameter is populated with **(.*?)_.***, meaning that the system will extract the first string prior to an underscore in the file name as this is how the ACES standard defines the naming convention. For example, with a file name of ACMESupply_BrakeHardware_2016-04-23_FULL.xml, 'ACMESupply' would be extracted as the Supplier value. If this is not desired, a Regular Expression can be inserted in the parameter to extract Supplier in an alternate way.
5. Optionally, enable the Omit application names parameter. When enabled, application names will be omitted during the conversion process so that the record will not be included in the delta file.

Note: If the SUPPLIER parameter is set to 'Yes' and Supplier cannot be parsed from the file name, the file will fail during the Conversion process and will be unable to be imported.

ACES Parameter Options

The values supplied in the conversion service specify the global system defaults. Each Brand can also have local values applied for handling that Brand specifically.



If a Brand does not have local values applied, the system defaults are used. The options for populating each parameter are the same, regardless of whether they are provided in the global or local parameters.

FULL

The FULL parameter defines how files with a SubmissionType=FULL are handled. The options are:

- **Brand:** Replacement of application records is within the brand. All applications for all brands in the input file are replaced (with or without regard to the Supplier, as per the value in that parameter), regardless of part terminology.
- **Brand + Part Number:** Replacement of application records is within the brand and part number. All applications for a particular brand are replaced for all part numbers that are in the input file (with or without regard to the Supplier, as per the value in that parameter). Applications for part numbers that are NOT in the input file are left untouched.
- **Brand + Part Terminology:** Replacement of application records is within the brand and part terminology. All applications for a particular brand are replaced for all part terminologies that are present in the input file (with or without regard to the Supplier, as per the value in that parameter). Applications for part terminologies NOT in the input file are left untouched.

SUPPLIER

The SUPPLIER parameter defines whether or not Supplier is taken into consideration when evaluating replacement scenarios. If multiple suppliers can provide records for the same Brand, and suppliers should not overwrite one another's records, this should be set to 'Yes.' If only a single supplier provides records for a given Brand, or suppliers are allowed to overwrite one another's data and only the most current data (regardless of supplier) is desired, this should be set to 'No.'

Note that both the FULL and UPDATE parameters work in conjunction with the SUPPLIER parameter, for which the options are:

- **No:** Replacements for this brand will replace applications records across all Suppliers, regardless of who provided the existing application records. In other words, do NOT take Supplier into account when evaluating replacements.
- **Yes:** Replacements for this brand will only replace application records provided by the Supplier in the input file. In other words, DO take Supplier into account when evaluating replacements. With this setting, it is important to ensure the Supplier can be accurately parsed from the file name.

Note: Supplier handling must be consistent within a Brand. Changing the Supplier setting in a Brand will have unintended consequences (e.g. the Supplier-based records will be duplicates of the non-Supplier ones). If it does need to change for a Brand, it is recommended to delete the existing records first and then do a full re-load of all records for the Brand.

UPDATE

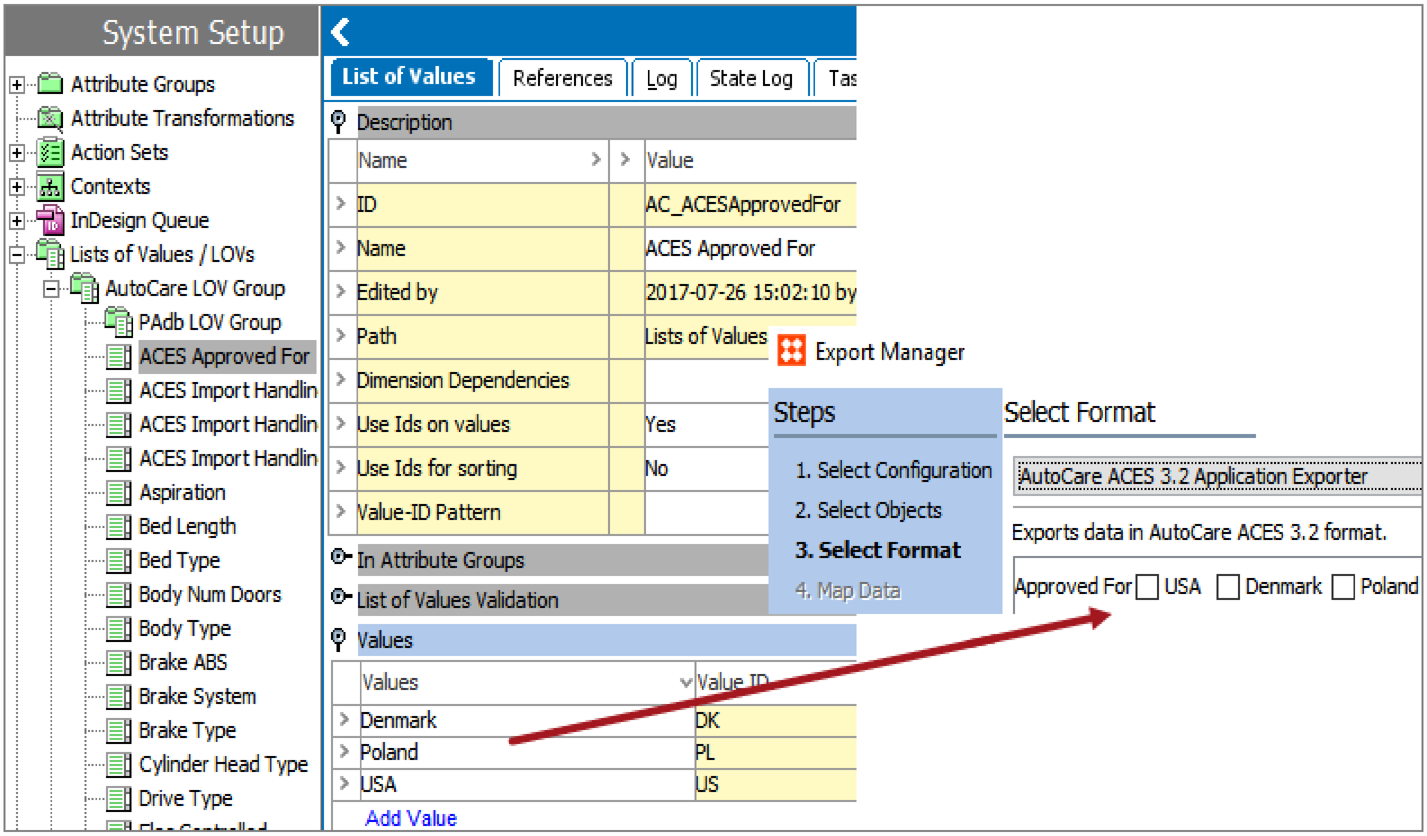
The UPDATE parameter defines how files with a SubmissionType=UPDATE are handled. The options are:

- **Partial Replacement:** Evaluate the combinations of Brand, Part Terminology, and Base Vehicle of each record provided in the file. For each combination found, replace all records in the database with those in the input file (with or without regard to the Supplier, as per the value in that parameter). This is essentially an additional variation of the FULL scenarios, but is used for UPDATE files only, to "update all records for this set of vehicles and part types."
- **Standard Update:** Delete records with action="D"; Add records with action="A." Only records explicitly in the file will be acted on (with or without regard to the Supplier, as per the value in that parameter).

10. Add Country Codes to Approved for LOV (ACES Export Only)

If ACES 3.2 Export will be used *and* the ApprovedFor tag in the header will be populated as part of ACES Exports, this setup action must be carried out.

The ACES Exporter includes an option to select countries that will be populated in the ApprovedFor element of the export. The values to select from are controlled by an LOV that is created as part of Easy Setup. The LOV is created without values as each implementation must determine the allowable values. Therefore, prior to running an export using the ApprovedFor element, values must be added to the LOV with ID=AC_ACESApprovedFor.



Note: The ACES standard allows for two character country codes only. The exporter interface displays the value of the LOV, while the export itself passes the value ID. Care must be taken to ensure that all value IDs are exactly two characters, or the export could generate a file that will fail validation on a downstream system.

11. Update Web UI Configurations

While not strictly required, it may be helpful to update some elements of the Web UI that are created by Easy Setup during setup action 2 (Configure import process) and 4 (Configure Web UI) for any standard that includes creation of screens in the Web UI. Some of these screens are ready to be used as-is, while others are considered a starting point only, and require additional work to complete the setup.

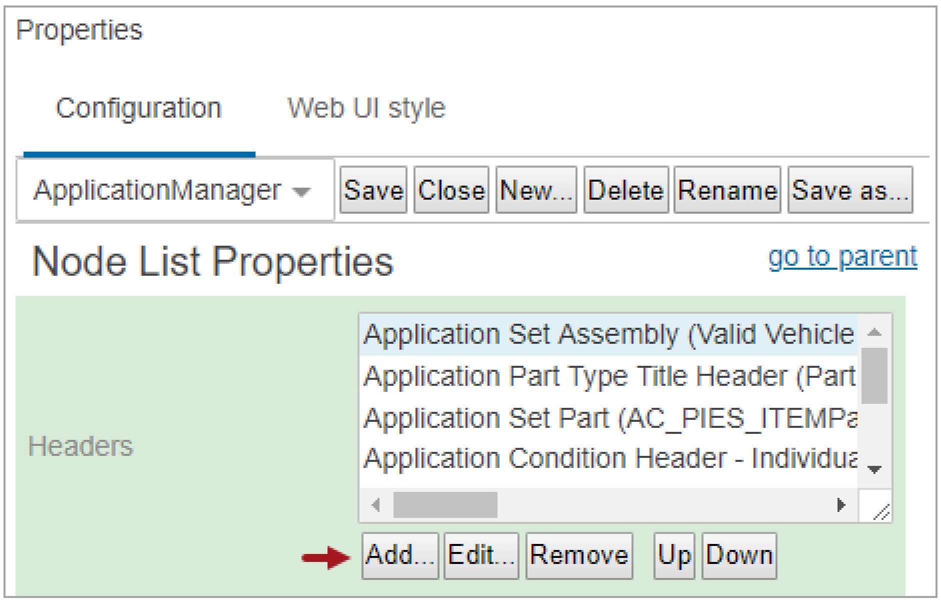
This section describes the following changes that may be helpful to apply in the Web UI:

- Adding Additional Headers to Application Screens
- Adjusting Homepage Import Status Selectors
- Displaying the Import Details Report Column
- Setting Access for Application Editor and Application Manager Screens
- Allow Applications Outside Part Type

Adding Additional Headers to Application Screens

All three of the application manager screens described in the previous section are usable as-is, once they have been made accessible following the previous instruction. However, they are intended as 'starter' screens only, meaning that it is expected that users will want to see additional data on them, which can easily be added via configuration.

Each of the application manager screens uses a Node List. Configuration of the Node List component is covered in detail in the **Node List Component** documentation in the **Web User Interfaces section** of the **STEP Online Help**. Within the Node List Headers parameter, users can choose any number of columns / headers to apply to the table view. Many of the most commonly used header components are covered in the **STEP Online Help**. Simply access the Node List Properties in the designer and click the **Add** button to add additional headers to the screen.



Below are tips for adding headers within the Automotive model:

- Be aware of the active selection of the screen when choosing headers to add. For example, on the Parts screen, a part object is the active selection so to display data from the part itself, standard Web UI components such as Attribute Value Header, Name Header, and Reference Header can be used. However, to display data from the application record or vehicle when on the Parts screen, the Application headers must be used (e.g., Application Assembly value to display data from the vehicle used in the application record, or Application Condition Header - Group to show criteria / option data from the application record).
- Most Application headers are self-explanatory via the header name and/or description text provided within the designer. However, there are two headers for which additional explanation can be helpful: 'Application Condition Header - Individual' and 'Application Condition Header - Group.'
    - Both are used to display data in conditions / criteria / options on an application record (e.g., Engine Base or Drive Type in the AutoCare model, Axle or Clutch Type in TecDoc, etc.).

- The headers are differentiated by whether they display multiple conditions in a single column in the results table, or display conditions individually in their own columns.
- **Application Condition Header - Individual**: displays all other populated conditions in a single header, where double-clicking in the cell opens a value editor where users can search for and populate data in the 'less important' conditions.
- **Application Condition Header - Group**: dynamically displays all conditions identified as 'important' for the part type(s) of the application record(s) being displayed.

Note: A condition is identified as 'important' by setting the Display Condition attribute to 'true' on the reference between the attribute and the part type.

Additional information on configuring these headers and the supporting data model behind them is covered in the **Controlling Display of Conditions in Application Manager** topic of the **STEP Automotive Reference Guide** found within the **Solution Enablement** section of **STEP Online Help**.

Adjusting Homepage Import Status Selectors

Easy setup creates a number of workflows to manage imports, along with a corresponding Web UI homepage widget (status selector) for each import. Each workflow contains a number of states, though not all are reflected in the corresponding status selector in Web UI. Specifically, the initial Validation and Conversion states are omitted as these states do not produce any interesting results for the end user if completed successfully. If errors are encountered, they can be viewed via the Error state. Whether successful or in error, transition out of these states is automatic so no user intervention is needed.

Furthermore, as described in the subsequent section, some implementations will likely choose to add additional states to the workflow which could produce an interesting result for the end user, such as a Reporting state.

Whether it is needed to display additional existing states or to display new ones, it may be necessary to adjust the configuration of the status selectors to display additional states. If so, detailed documentation for configuring status selectors is available in the **Status Selector Homepage Widget** topic within the **Workflows in Web UI** section of **STEP Online Help**.

Displaying the Import Details Report Column

A series of "workflow" screens are created by Easy Setup, one for each import format. These are named [Standard][Format]WorkflowScreen (e.g., TecDocReferenceWorkflowScreen), and are used to display the details of any file import.

By default, each workflow screen contains a 'Report' column, as it is expected that many customers will add a workflow state to evaluate data in an incoming file and report on it. This reporting functionality can be developed using the Extension API. Once developed, the Report column will provide a downloadable report link for the applicable state. Users can use the link to view and analyze the report prior to making the decision to actually import the data within a file.

Import Details

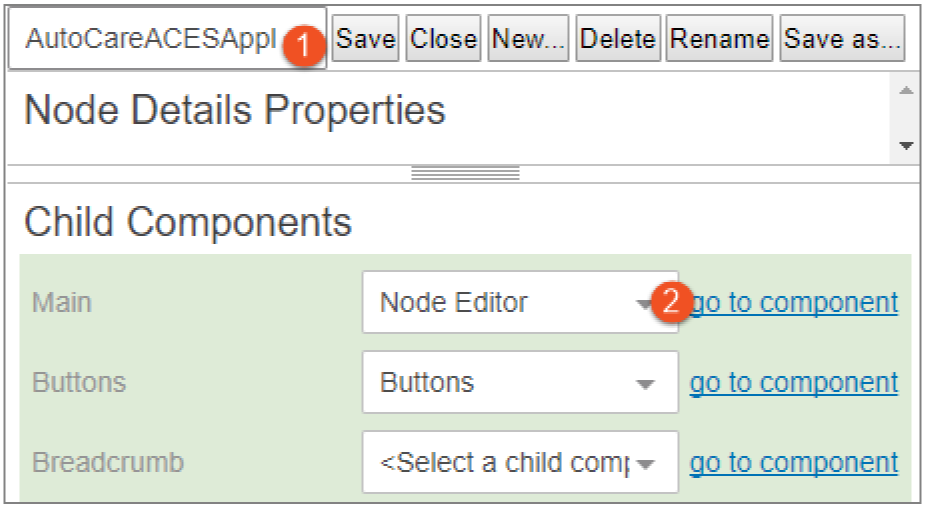
Process	Started Time	Duration	Started By	Status	Background Proce	Report
Validation	2017-07-25 13:29:40	4 secs	STEPSYS	Validation completed	succeeded	
Conversion	2017-07-25 13:29:44	5 secs	STEPSYS	Conversion completed	succeeded	
Delta Calculation	2017-07-25 13:29:49	5 secs	STEPSYS	Delta calculation completed	succeeded	
Import	2017-07-25 13:30:25	5 secs	STEPSYS	Import completed	succeeded	

If reports will be created for the import, no action is needed. However, if there are not any plans to develop reports, it is suggested that the column be removed so as not to confuse end users who may then question why a report is not available.

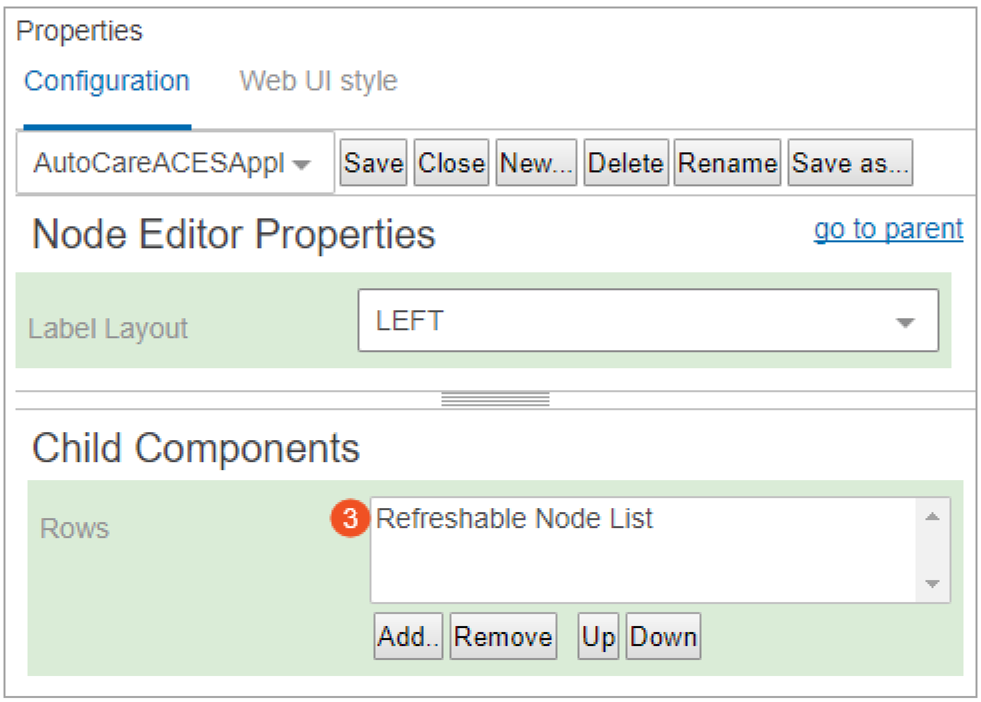
Removing the Report Column

Below are the steps to remove the Report column.

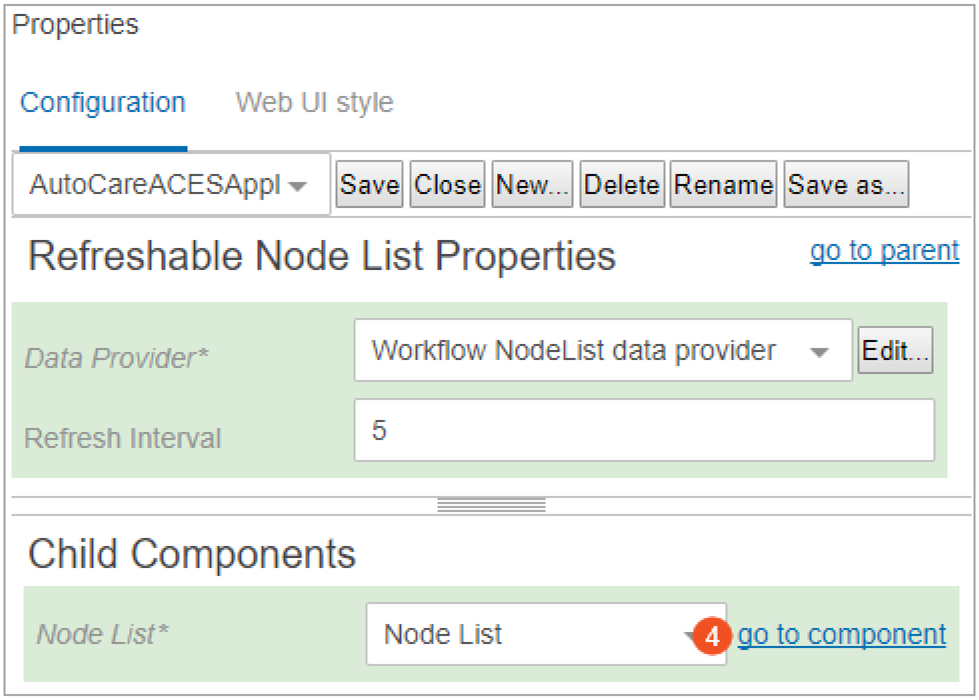
1. Open the Web UI Designer and using the screen dropdown in the upper left of the designer pane, select the workflow screen you would like to edit.
2. Click the **go to component** link for the Node Editor component.



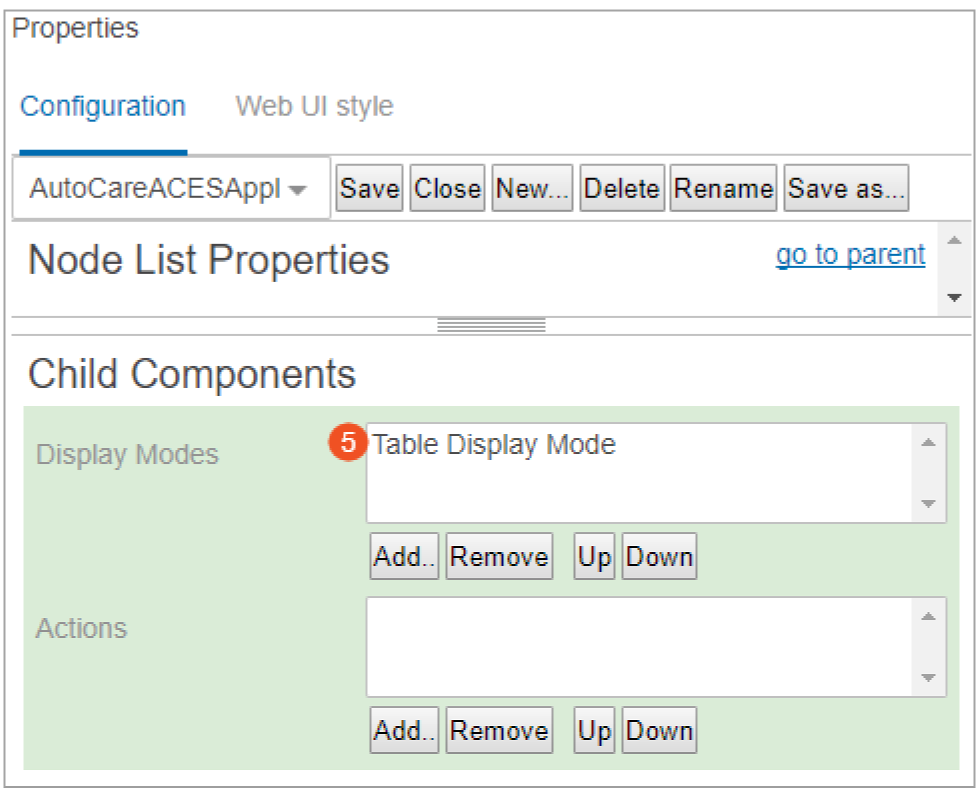
3. Double-click the **Refreshable Node List** component to open the Refreshable Node List Properties.



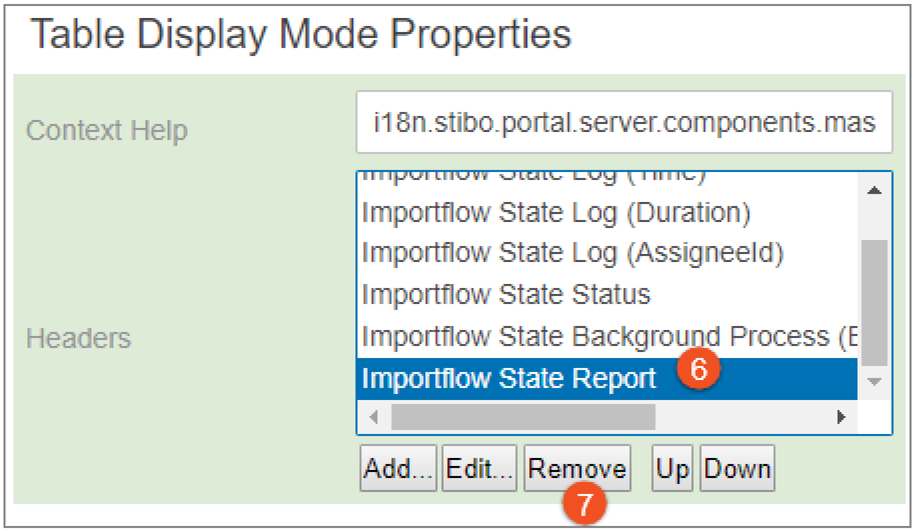
4. Click **go to component** for the Node List to open the Node List Properties.



5. Double-click the **Table Display Mode** component to open the Table Display Mode Properties.



6. On the Table Display Mode Properties dialog, find the Headers parameter. Scroll down within the Headers parameter to locate and select the **Importflow State Report**.
7. Click the **Remove** button.



Setting Access for Application Editor and Application Manager Screens

Within each standard, Easy Setup creates multiple screens that can be used for viewing and editing application records. Each of the standards and their out of the box screens are described below. Though these screens can be customized as needed, this topic describes each of the screens created across the different standards (AutoCare, NAPA and TecDoc) and steps for adding the Application Manager screen to the Links Widget.

AutoCare

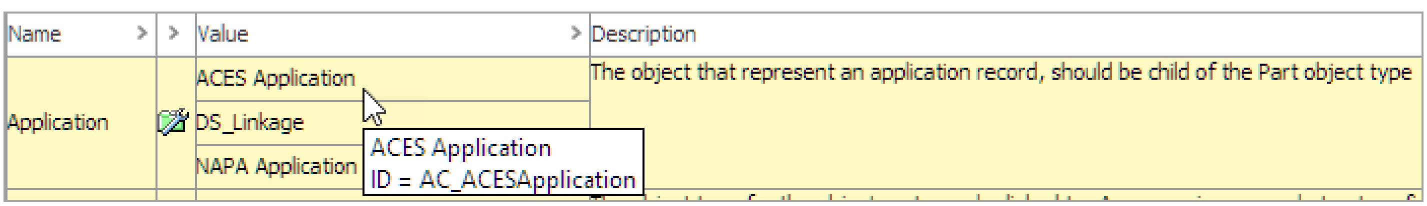
Each of the automatically configured screens for the AutoCare solution are described below:

- **AutoCare Application Editor Screen (Parts):** A screen for viewing / editing application records when a part is selected.
- **AutoCare Application Editor Screen (Vehicles):** A screen for viewing / editing application records when a vehicle is selected
- **AutoCare Application Manager Screen:** A screen for viewing / editing application records where users input vehicle, part type, and/or part number selections to search for application records, and optionally search for missing coverage on the input selections

When Easy Setup actions are completed, the Automotive - Application Model is populated with the following value IDs related to these screens:

- Application Records = AC_ACESApplication
- Vehicles / Assemblies = AC_BaseVehicle
- Part Types = AC_PartTerminology

In the example below, the Application parameter is displayed within the Automotive - Application Model component model configured with the ACES Application (AC_ACESApplication) value. When Easy Setup actions are completed, the component model is configured automatically.



Important: In order for the Application Editor and/or Manager screens to properly function, the desired object types must be configured within both the component model and the Web UI screens.

NAPA

Each of the automatically configured screens for the NAPA solution are described below:

- **NAPA Application Editor Screen (Parts):** A screen for viewing / editing application records when a part is selected.

- **NAPA Application Editor Screen (Vehicles):** A screen for viewing / editing application records when a vehicle is selected
- **NAPA Application Manager Screen:** A screen for viewing / editing application records where users input vehicle, part type (MPCC), and/or part number selections to search for application records, and optionally search for missing coverage on the input selections

When Easy Setup actions are completed, the Automotive - Application Model is populated with the following value ID's related to these screens:

- Application Records = NAPA_Application
- Vehicles / Assemblies = NAPA_Year
- Part Types = NAPA_MPCC

In the example below, the Application parameter is displayed within the Automotive - Application Model component model configured with the NAPA Application (NAPA_Application) value. When Easy Setup actions are completed, the component model is configured automatically.

Name		Value	Description
Application		ACES Application	The object that represent an application record, should be child of the Part object type
		DS_Linkage	
		NAPA Application	
		NAPA Application ID = NAPA_Application	

Important: In order for the Application Editor and/or Manager screens to properly function, the desired object types must be configured within both the component model and the Web UI screens.

TecDoc

Each of the automatically configured screens for theTecDoc solution are described below:

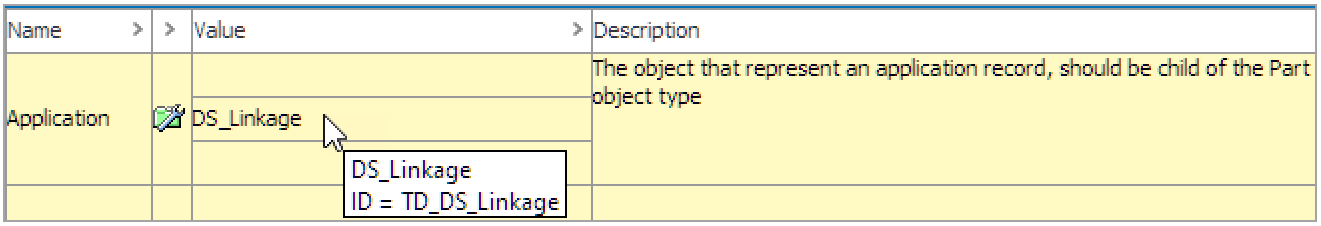
- **TecDoc Application Editor Screen (Articles):** A screen for viewing / editing application records when an article is selected.
- **TecDoc Application Editor Screen (Assemblies):** A screen for viewing / editing application records when an assembly is selected
- **TecDoc Application Manager Screen:** A screen for viewing / editing application records (where users input vehicles or assemblies and/or part types (TD generic article) selections to search for application records, and optionally search for missing coverage on the input selections.

When Easy Setup actions are completed the Automotive - Application Model is populated with the following value ID's related to these screens:

- Application Records = TD_DS_Linkage
- Vehicles / Assemblies = TD_VehicleType(PC), TD_VehicleType(CV), TD_EngineCode

- Part Types = TD_StandardAssemblyGA, TD_UniversalAssemblyGA

In the example below, the Application parameter is displayed within the Automotive - Application Model component model configured with the TecDoc Application (TD_DS_Linkage) value. When Easy Setup actions are completed, the component model is configured automatically.



Important: In order for the Application Editor and/or Manager screens to properly function, the desired object types must be configured within both the component model and the Web UI screens.

While all the above screens themselves are created by Easy Setup, it is up to each implementation to make them available.

The Application Editor screens requires an object selection, so these screens needs to be mapped for a particular object type or added on a tab within another screen that is mapped to the appropriate object.To map the Parts or Vehicles screen directly (meaning that when you are on a part or vehicle, you will only see that screen) see the **Mappings** topic within the **Main Properties Overview** section of **STEP Online Help**.

To add the Parts or Vehicles screen to an existing screen, use the Sub Screen Tab Page configuration, described in the **Tab Pages** topic within the **Using a Web UI** section of **STEP Online Help**.

The Application Manager screen does not require an object selection, so this needs simply to be made accessible to users, which can easily be done by adding a link to the screen on the homepage.

To add access to the Application Manager screen from the homepage, use the Links widget, which is configured as part of Easy Setup. For more information about the Links Widget, see the **Homepage Widgets** topic within the **Web User Interfaces** section of **STEP Online Help**.

Adding an Application Manager Screen to a Links Widget

Note: If Easy Setup actions for the AutoCare, NAPA, or TecDoc solution have been completed as described in the STEP Automotive Quick Start Guide, then the links to the standard specific Application Manager screens will automatically be added to the Quick Links Homepage Widget as shown in the examples below. Otherwise, the following steps can be used to complete configuration.

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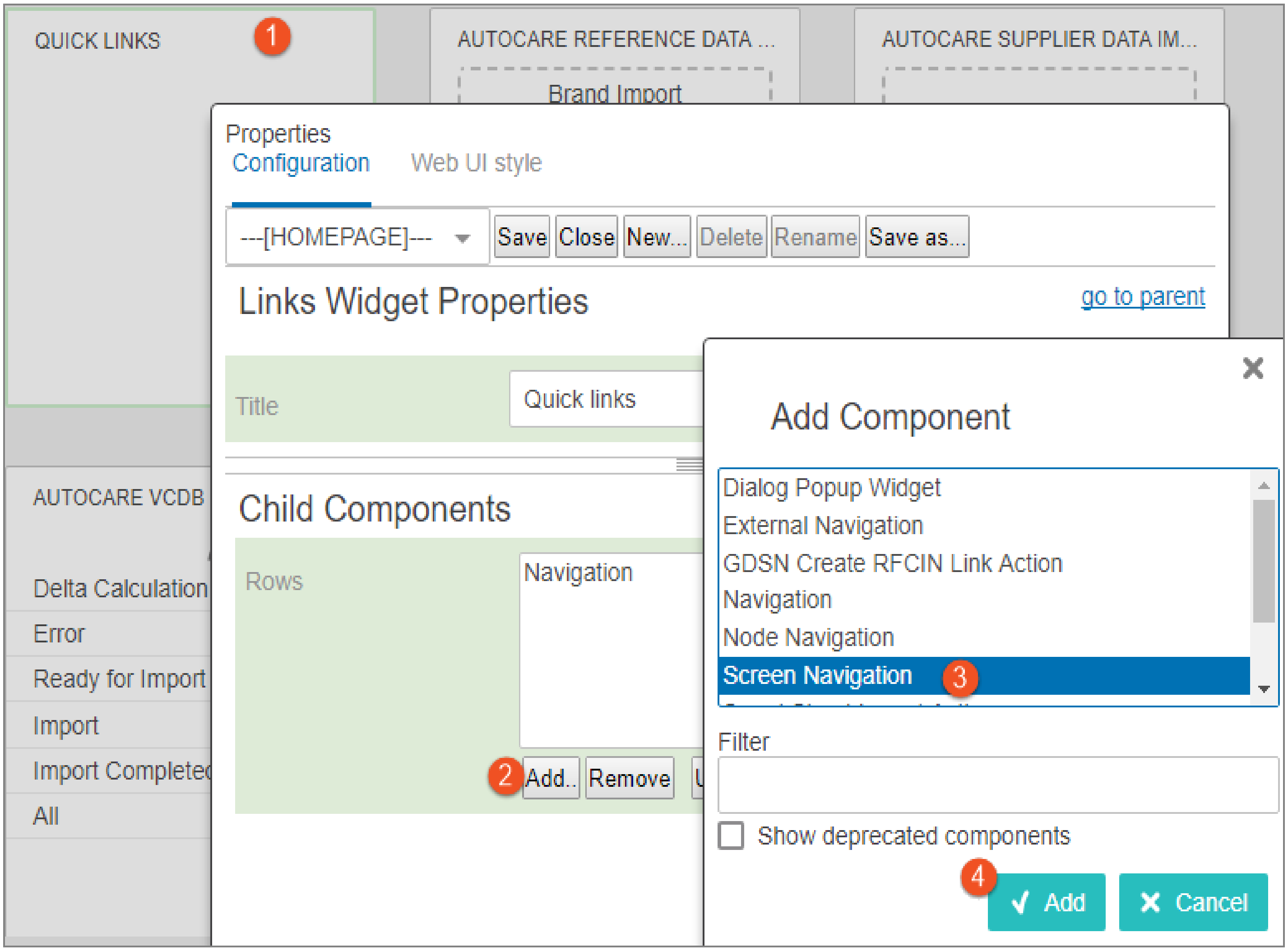
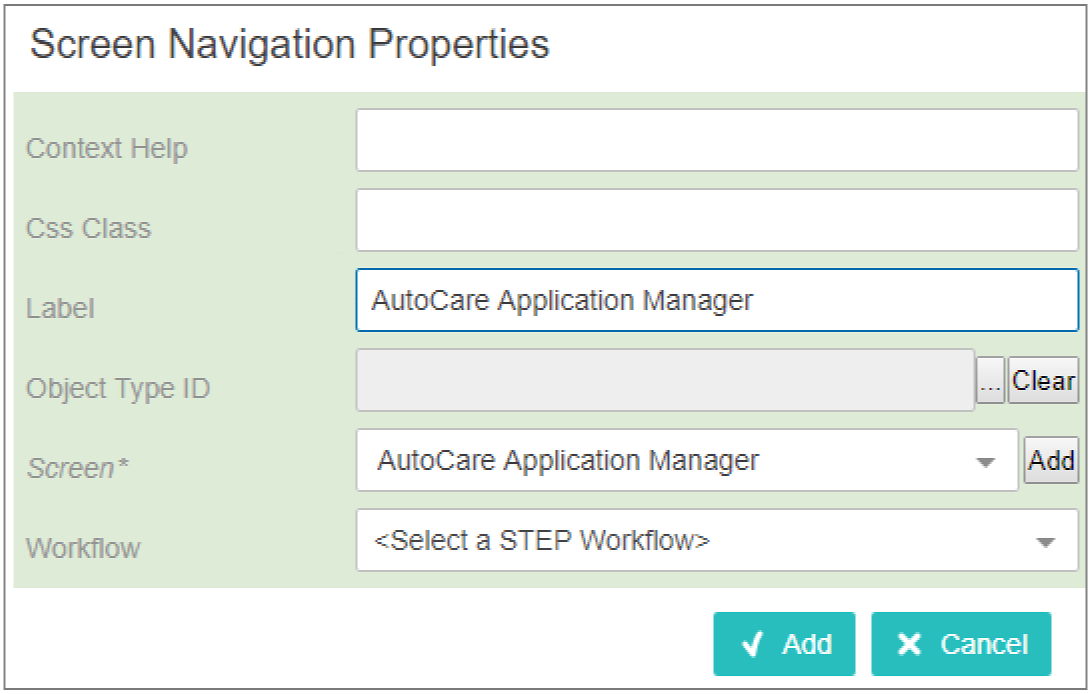
1. In design mode, select the **Links Widget** from the Homepage
2. Click the **Add** button
3. Select **Screen Navigation**
4. Click the **Add** button.

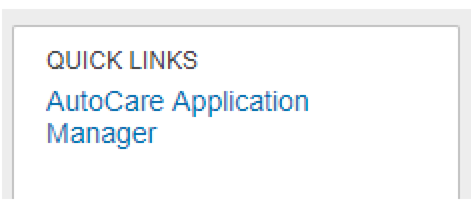


5. Add a **Label** that will display as a clickable link in the Links widget, select the appropriate Search screen, and click the **Add** button

   In the screenshot below, the Label and Screen parameters are populated with the value 'AutoCare Application Manager.'



6. The result will be that the Links widget in the homepage will now include a link directly to the Application Manager screen.



Additional information on the Links Homepage widget, and its configurations, is available in the **Homepage Widgets** section within the **Web User Interfaces** section of **STEP Online Help**.

Allow Applications Outside Part Type

When using an Application Editor, if a part number is found using the part type search, but the part number is being applicated to a part type that differs from the one used to search, an error dialog will display informing the user that the part cannot be linked because the part type is different. In other words, when using the application editor to applicate parts, a parts part type must match the applications part type.

However, it is possible to override this, allowing users to select a part number with a part type that does not match the part type searched for application. In other words, the Application Editor will ignore the searched part type when assigning the part number to the application. This is helpful when working with a part that can only have a single part type, but can be applicated for multiple part types.

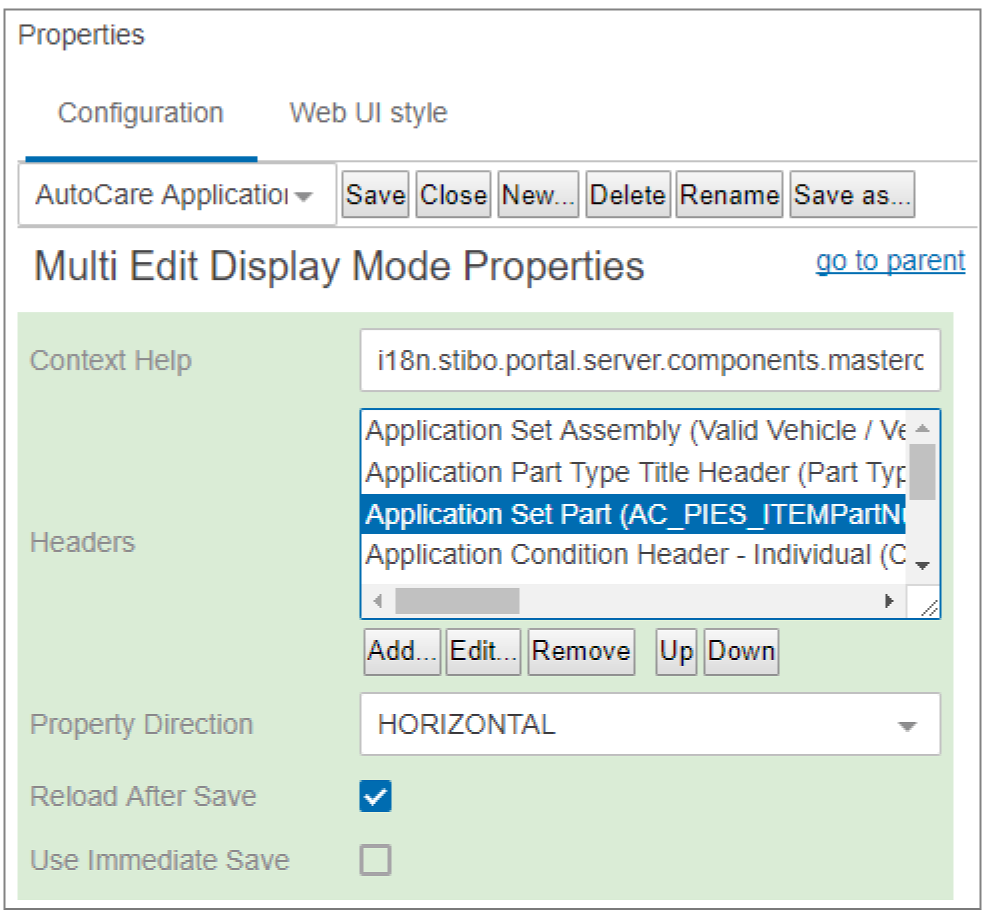
Prerequisites

The new parameter will need to be added by running **Automotive - [Standard] Model > 4. Configure [Standard] WebUI** Easy Setup.

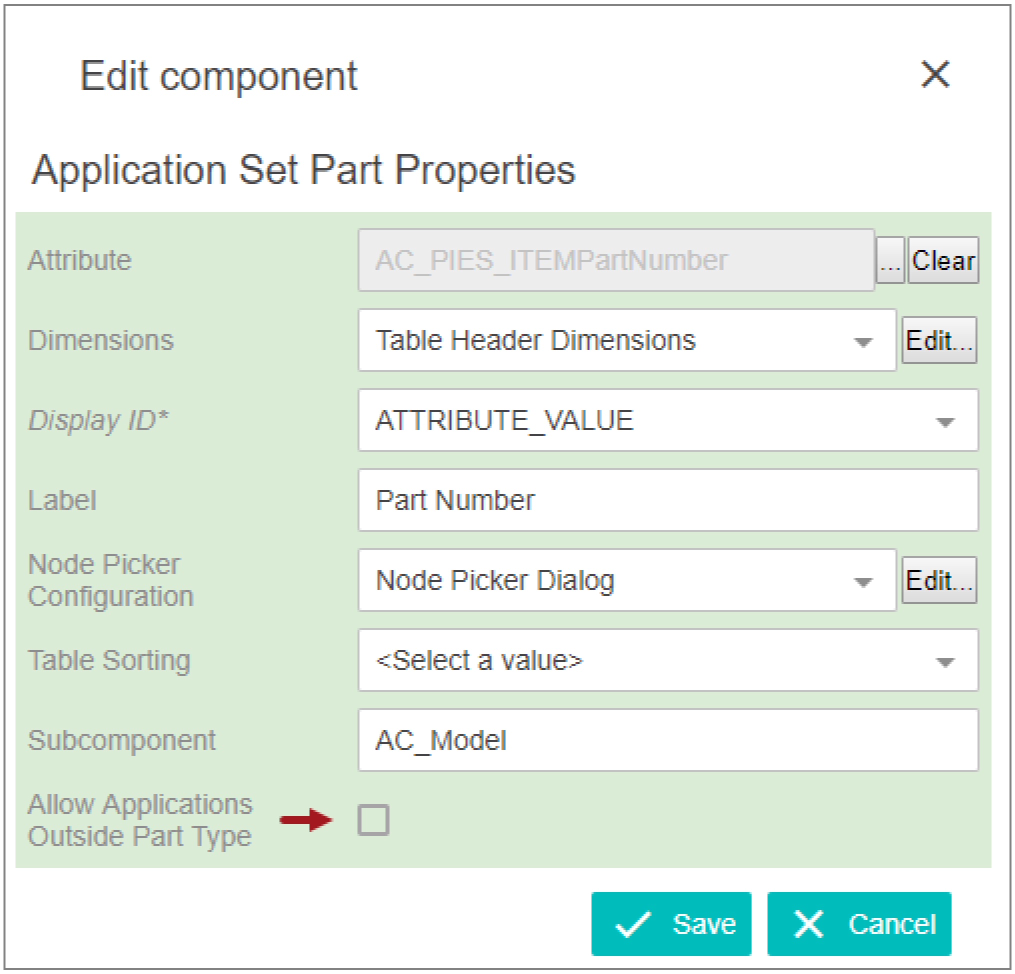
Enabling the Allow Applications Outside Part Type

Below are the steps to enable the Allow Applications Outside Part Type parameter.

1. Go to the Application Editor's Multi Edit Display mode Properties > Headers.
2. Select **Application Set Part**.



3. Click the **Edit** button, and the Application Set Part Properties will display.
4. Click the checkbox for the **Allow Applications Outside Part Type**.



5. Click the **Save** and **Close** buttons to save and close the designer.

12. Other Considerations

As you have seen above, the STEP Automotive solution provides a large amount of ready-to-use functionality. In addition, the solution is designed to be flexible and extendable via standard STEP configuration and use of the Extension API. Within the elements of the STEP Automotive solution, it is expected that users will modify and expand on the base solution to best meet their particular needs. In addition to the STEP Automotive solution, most customers will also want to take advantage of the core STEP capabilities to accomplish standard data management activities. Some suggestions for additional topics to be considered as part of a comprehensive STEP implementation are listed below, though this should not be considered an all-inclusive list as each customer will likely have unique business cases to be solved.

- What is the onboarding and approval process for parts? Should a workflow be added for new product onboarding?
- What is the approval process for reference and supplier data? Will reporting capabilities be added via the Extension API so data can be reviewed prior to import? Should business rules (and/or additional states) be added to the existing import workflows to validate data beyond the standard format validations? Should all data be considered trusted and auto-approved, and the import files modified to approve the data upon import? Should data be entered into a workflow for further review and approval following import?
- Is any unique processing of import files required? Does any data need to be filtered out, validated, etc in a non-standard way? If so, a new state could be added to the relevant workflow and additional processing could be managed within that state using the Extension API.
- Will an "Own" model be considered as part of the solution? If so, what needs to be added to support that (e.g., data model, integrations, workflows, etc)?
- If an Own model is used, consider adding the Reference Delegation screen to an Application Editor screen.
- What data do users need to view and manage in Web UI? Should additional screens be added for onboarding, maintenance, or viewing of parts, vehicles, or any other data?
- How will data deletions be handled? The automotive importers have the capability to mark data for deletion, but will not actually carry out the deletions as each implementation should determine how to review and process deletions. The existing import workflows could be modified to carry out deletions rather than simply marking the data for deletion. Alternatively, data marked for deletion could be added to a separate workflow for review and execution of the deletion.

Quick Start for Users

This section provides an overview of end user functionality that is provided with the solution after Easy Setup actions for one or more automotive standards have been completed by an admin.

This section addresses the following topics:

- Using Automotive Importers
- Using Automotive Exporters

Prerequisites

This guide assumes that the reader has had some degree of STEP training and is able to perform basic navigation and data maintenance tasks in the STEP Web UI. Additional introductory material is provided in **STEP Online Help**, if needed.

Important: This guide will often use the AutoCare standard as an example, but the same information is applicable for the NAPA and TecDoc standards.

Using Automotive Importers

The individual processing of each import is of course different, but the way a user initiates and manages the imports is the same, and is described in the subsequent sections.

For information on the supported versions, see the **Supported Versions and Formats** topic.

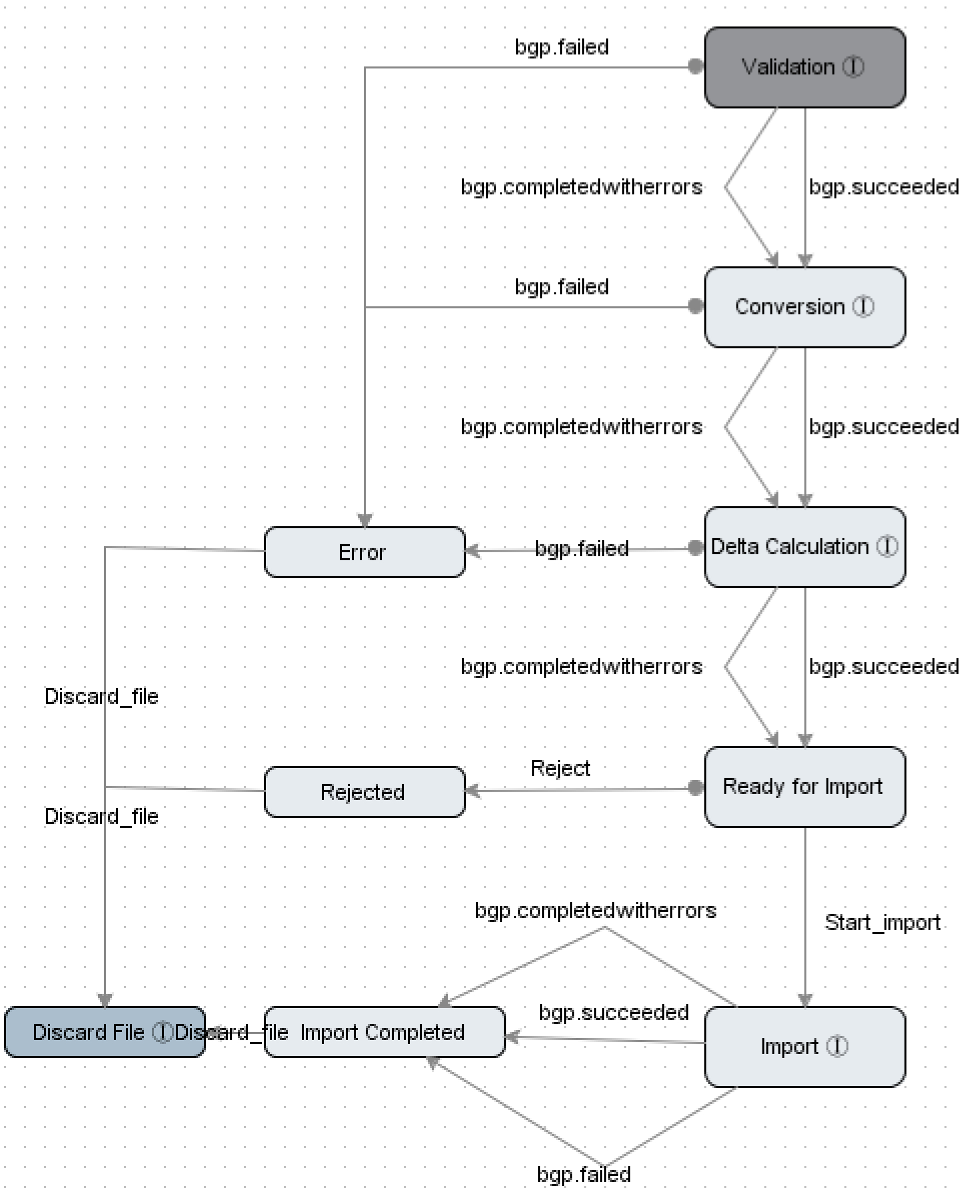
Important: If part and application data are imported into STEP without using the proper ID structures, then errors will occur. Prior to importing, review the **ID Structures in Importers** topic within the **Automotive Reference Guide**.

This section addresses:

- Import Workflow Overview
- File Loading
- Web UI Status Selectors & Import Control Panel Screens

Import Workflow Overview

When a file is loaded through an automotive importer, a STEP entity is created that represents the file, and then the entity (referred to as the controller) is initiated into a workflow. This section provides an overview of the default Automotive Import workflow.



Note: Each workflow can be extended to accomplish additional processing and/or reporting activities specific to any customer. Therefore, you may notice additional states (or additional activities occurring within the default states) on your system.

Validation

The Validation state does some basic schema validation of the file. If the standard supplies an XSD, the file format is validated against the XSD. If an XSD is not provided by the standard, the file is loosely validated to ensure the format conforms to what is expected for the file type. If the file fails validation, it will move to the Error state and will remain there until a user takes action on it. Files that successfully complete validation (with no errors or with only non-fatal errors) will move automatically to the Conversion state.

Conversion

The Conversion state converts the original file into a series of STEPXML files that include the full dataset from the import file. If the import file fails conversion, it will move to the Error state and will remain there until a user takes action on it. Files that successfully complete conversion (with no errors or with only non-fatal errors) will move automatically to the Delta Calculation state.

Delta Calculation

The Delta Calculation state evaluates the converted files against either the database or the previously loaded converted files of that type (depending on the configuration of the delta calculation method for the import) and generates a set of delta files for import. Any existing data that would be unchanged by the import is omitted from the delta files as a means of increasing performance of the actual import. If the file fails delta calculation, it will move to the Error state and will remain there until a user takes action on it. Files that successfully complete delta calculation (with no errors or with only non-fatal errors) will move automatically to the Ready for Import state.

For more information, see the **Delta Calculation State** topic within the **Importing Automotive Data** section of this guide.

Error

Files that have failed validation, conversion, or delta calculation will end up in the Error state. From there, the errors can be reviewed and the file can be discarded. Note that it is not possible to do further processing of the file after it has failed, though it can be subsequently reloaded.

Ready for Import

When a file has successfully completed validation, conversion, and delta calculation, it will be available in the Ready for Import state, which is the first state in which user interaction is required for successful files. If customer-specific reporting has been added to the implementation, it is likely that reports can be viewed in this state. Whether or not reporting has been added, the Ready for Import state is where the user must decide whether to import or reject the file. If the user rejects the file, it will be moved to the Rejected state. If the user chooses to import the file, it is moved to the Import state.

Rejected

The Rejected state displays files that have successfully completed all pre-import processing, but have been deemed unacceptable for import by a user, usually due to data issues. A rejected file cannot be imported unless it is reloaded, so the only option to act on a file in this state is to discard it.

Import

The Import state carries out the actual import of the delta calculation files. When complete, the file is automatically moved to the Import Completed state.

Import Completed

Upon completion of the import, the file will be assigned a 'completed' or 'completed with errors' status. If errors are present, they can be reviewed in this state. Files may be left in the Import Completed state or discarded. In either case, no further processing of the file occurs unless additional customer-specific processing states have been added.

Discard File

Sending a file to the Discard File state simply removes it from the workflow. It does not delete any data from STEP or the application server, unless customer-specific processing has been added to the state to do so.

Important: When using the 'file' delta calculation method, discarded files will not be used for delta calculations. The last loaded file must be retained for it to be used in delta calculation.

Additional information on configuration and processing within each standard's importer is available within the **Importing Automotive Data** section of the **Automotive Reference Guide**.

File Loading

All of the automotive importers use hotfolders to import automotive data. The automotive integration endpoints automatically create hotfolders on the application server for file loading.

Users can upload files to hotfolders by accessing the application server or by using a Web UI configured with a File Loading Widget for the desired file type.

Uploading Files via the Application Server

To upload a file to a specific hotfolder by accessing the application server:

1. Access the application server and navigate to /upload/hotfolders/[Importer].
2. Drop the file into the folder with a name aligning with the importer (e.g., TecDoc Reference Inbound Endpoint should have files dropped into the 'TecDocReferenceInputFolder').
3. The endpoint will pick up the file at the next scheduled polling, and the file load will begin.

Note: The endpoints are created with a default schedule of polling the hotfolder once per minute, but this setting is adjustable for each endpoint, so it may vary between importers and implementations.

To understand what happens after the file loads it is important to first understand how the import workflows operate, which is described in the **Import Workflow Overview** section.

Uploading Files via Web UI

To upload a file to a specific hotfolder via a Web UI, a File Loading Widget can be used. For more information, see the **File Loading Widget** topic within **STEP Online Help**, and the relevant standard specific topics available within the **STEP Automotive Reference Guide** listed below:

TecDoc File Loading via Web UI

- Importing Reference Data Files via Web UI

Web UI Status Selectors & Import Control Panel Screens

Easy Setup provides a separate Web UI for each of the three supported standards: AutoCare, NAPA, and TecDoc. One or more Web UIs will be available, depending on configurations applied during the Easy Setup actions.

It is expected that the Web UI administrator will modify the default configurations to provide access to customer-specific data and processes as needed so your Web UI may look different from what is described below. However, it is likely that the default configurations have been expanded upon rather than removed so you should see something comparable to what is described. If not, please contact your administrator for additional information.

Below is an example of how the Web UI launch buttons (when created for each of the standards) will display on the WebStart page.

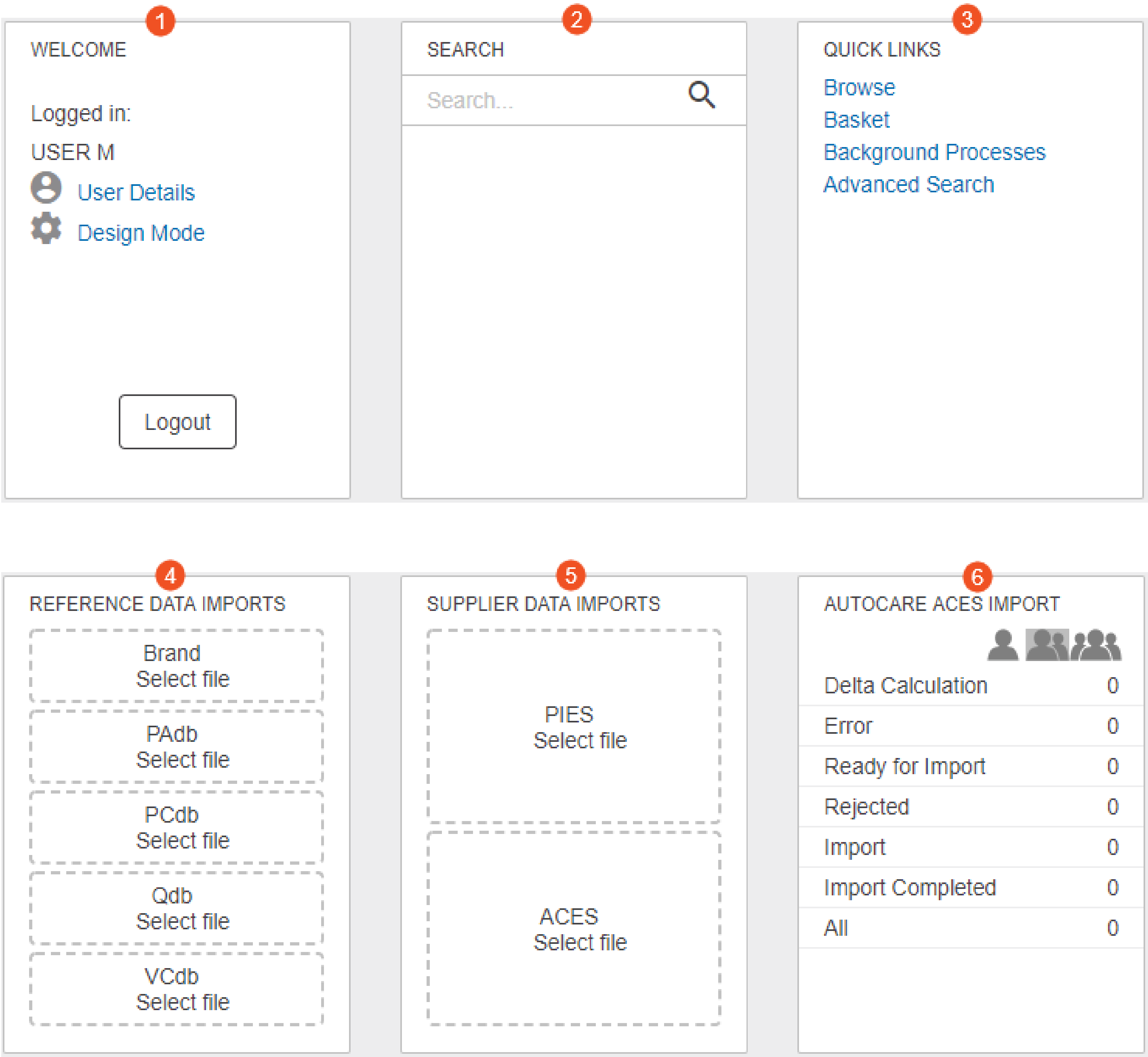
Clicking the applicable launch button will open your default browser and navigate you directly to the Web UI URL.

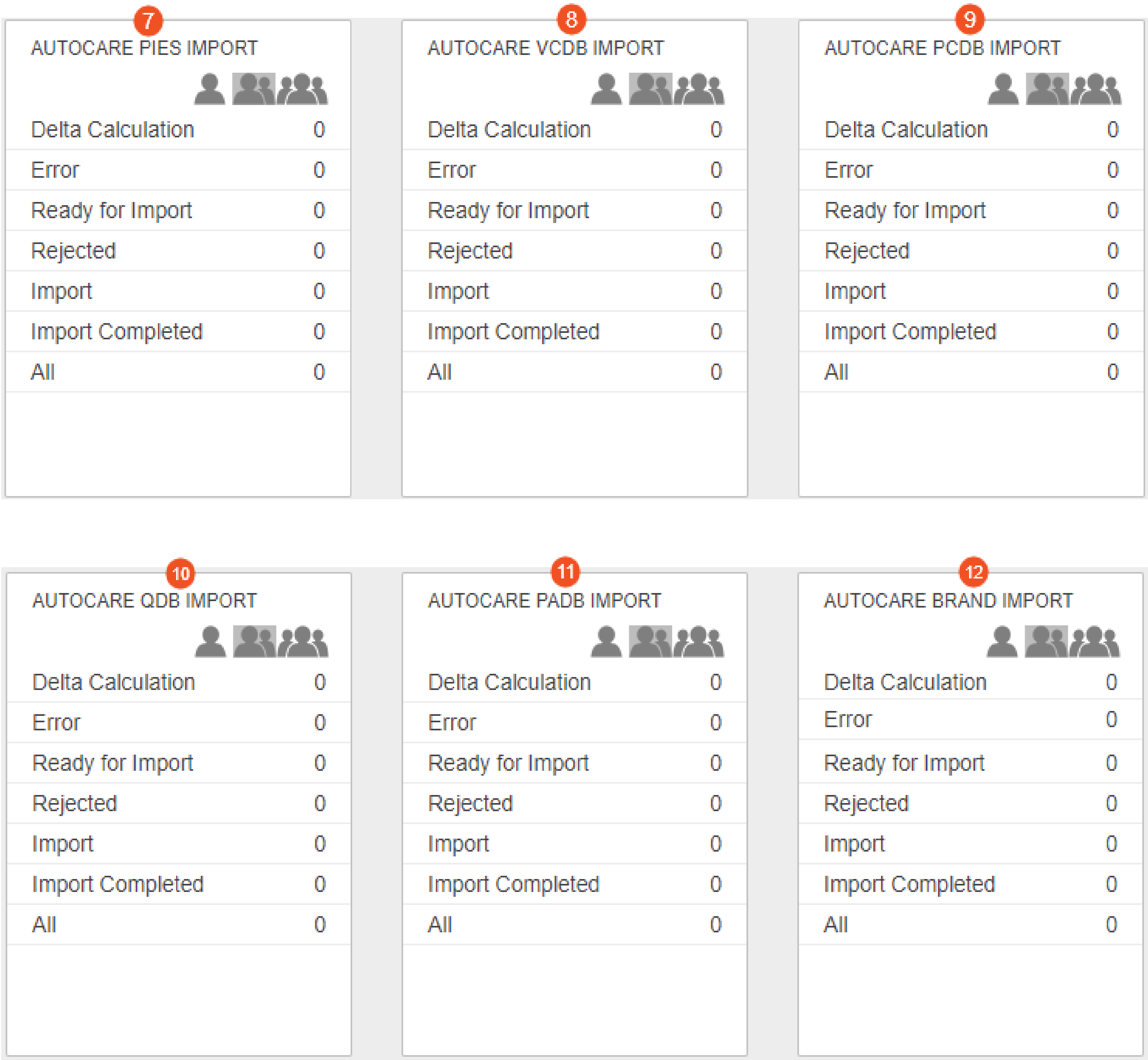
After logging in, the Web UI homepage will display the following widgets: Welcome, Search, Quick Links, File Loading specific to the Standard, and Status Selectors corresponding to each importer for that standard.

For example, the AutoCare Web UI homepage displays the following widgets:

1. Welcome
2. Search
3. Quick Links
4. File Loading for Reference Data Imports
5. File Loading for Supplier Data Imports
6. Status Selector for the AutoCare ACES Importer
7. Status Selector for the AutoCare PIES Importer
8. Status Selector for the AutoCare VCdb Importer
9. Status Selector for the AutoCare PCdb Importer
10. Status Selector for the AutoCare Qdb Importer
11. Status Selector for the AutoCare PAdb Importer
12. Status Selector for the AutoCare Brand Importer

StiboSystems





This section will address the basics of what you need to know to carry out an import within the Automotive solution.

For general information about the File Loading Widget and Status Selector Widget, including additional information about working with these widgets, see the **File Loading Widget** topic within the **Web User Interfaces** section of **STEP Online Help**, and the **Status Selector Homepage Widget** topic within the **Web User Interfaces** section of **STEP Online Help**.

To work with any importer, choose one of the three filter option icons available at the top of the widget:

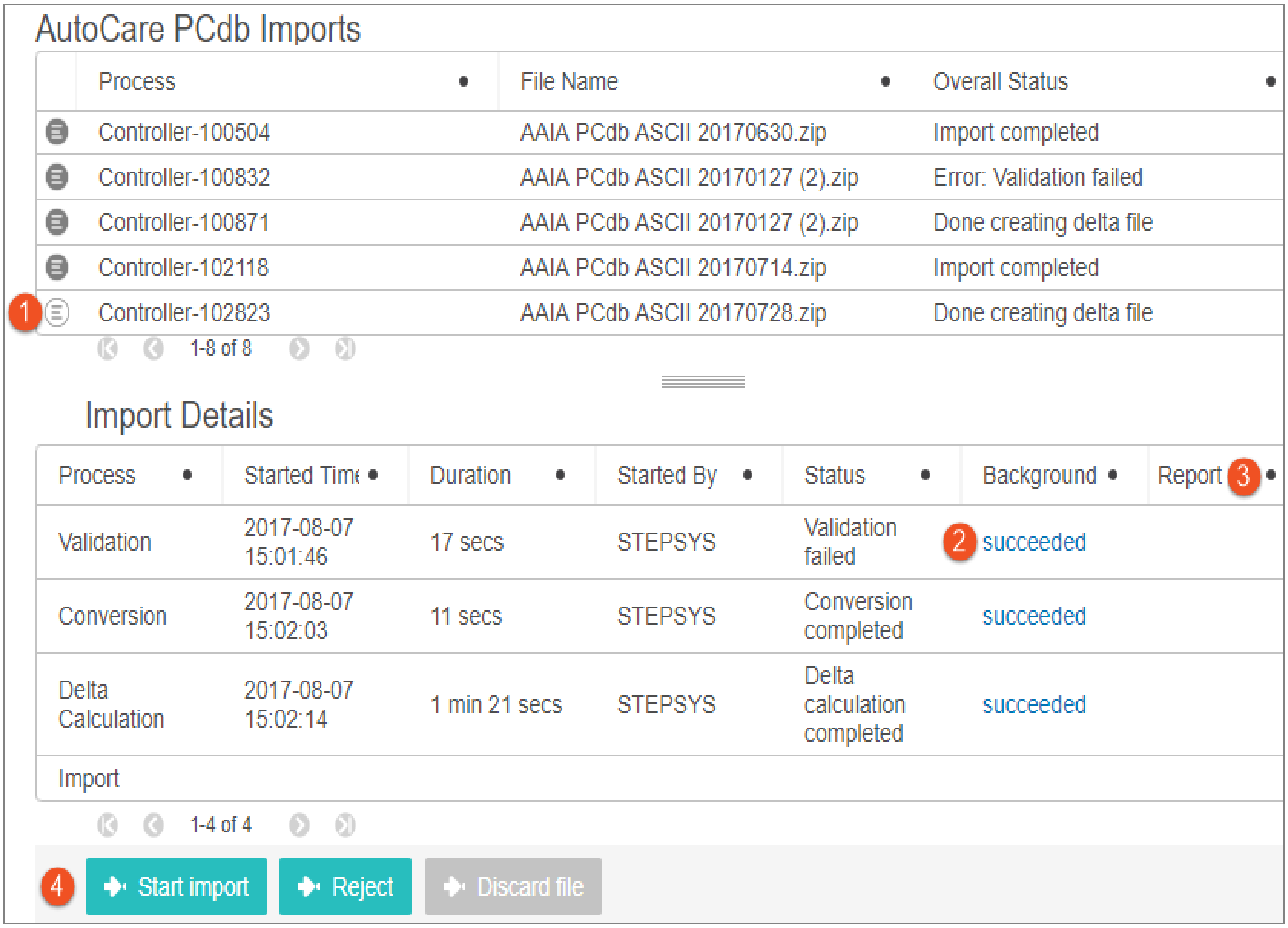
- Displays items assigned directly to the user logged in.
- Displays items assigned to the user logged in or to any group the user is part of.
- Displays all items assigned to any user.

Once the appropriate filter is selected, then simply click on the state in which you wish to view files, or click on the 'All' state to view all files in the workflow, regardless of state.

Note: By default, the Validation and Conversion states are not displayed as files usually move fairly quickly through these states and no user intervention is required. Because of this, there is a slight delay between loading a file and the appearance of the file in the widget. If this is bothersome, the configuration of the status selectors can easily be updated by the Web UI administrator to include the Validation and Conversion states (along with any other customer-specific states).

Clicking on any state will take you to a screen that displays data for all files in that state. Selecting an individual file will display additional details about the file, and the available actions that can be taken (based on the state in which it sits).

For example, when the 'All' option on the import widget is selected, then the import list screen can display as shown below.



1. Click the details icon of any file to view the import details.
2. Each completed process will include a link to the background process. Clicking the link will take you to a background process screen where you can view any errors that the process encountered. Note that the process can still succeed when validation has failed (as shown above). This occurs when schema validation is successful, but some allowable data errors were found and the importer is configured to continue when these types of errors are encountered.
3. If customer-specific reporting has been added, links will appear in the Report column for any states that generate a report as part of the output. If customer-specific reporting has not been added, the Report column may have been removed by the administrator.
4. Three actions are available, and will be enabled or disabled depending on the state of the file. These are further described below.

Available Action Buttons

- **Start Import:** This button is only enabled if the file is in the Ready to Import state. By default, this will occur after the delta calculation has completed and the file will have a 'Done creating delta file' status. However, additional customer-specific states may have been added and/or the overall status setting may have been changed. When the 'Start import' button is clicked, the actual import process starts, and the content of the delta files is imported. A background process link will be displayed in the table and clicking the link will take you to a screen where you can monitor status and progress of the import if desired.

Important: The 'Start import' button will not be enabled unless the file is in a state from which it is legal to import (e.g. there is a 'Start import' transition available in the workflow from the current state).

- **Reject:** Similar to the 'Start import' button, the Reject button is only enabled if the file is in the Ready to Import state. The intent of the Ready to Import state is to allow users to make the decision as to whether or not the file should be imported. This is typically done by reviewing the errors (if any) generated by the preceding processes and/or reviewing any customer-specific reports that have been added. Based on the available data, if it is determined that the file should not be imported, then it should be rejected. This will put the file in a Rejected state and it will not be possible to import the file without reloading it.
- **Discard file:** The option to discard a file is only available for files that are in the Error, Rejected, or Import Completed states as these are files that have already been determined not to be allowable for import due to errors and/or data concerns or are files that have already been successfully imported. Therefore no further work can or will be done on them within the import workflow. Discarding the file removes it from the import workflow and it will no longer show up in the list of files for that importer.

Using Automotive Exporters

This topic serves as an overview of how each of the available Automotive exporters are used, and how to access them.

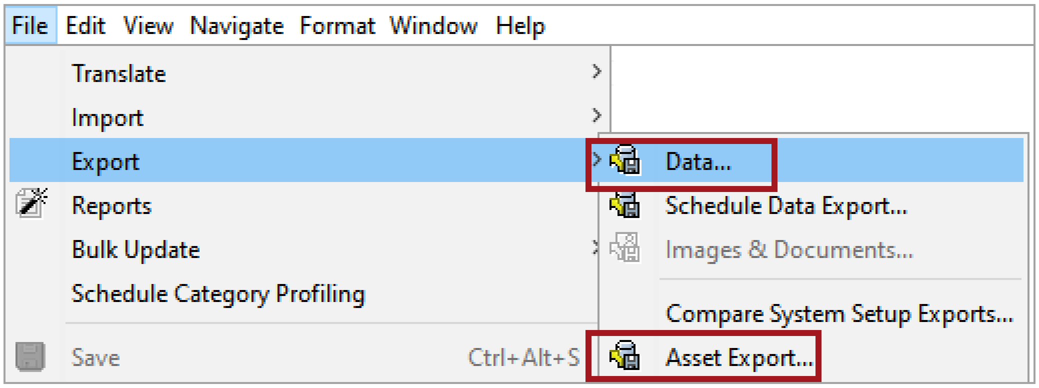
For information on the supported versions, see the **Supported Versions and Formats** topic.

- **Asset Exporter:** Used to export asset data.
- **AutoCare ACES Application Exporter:** Used to export application data in ACES format. ACES versions 3.0 and 3.2 are supported. The exporter requires that applications be stored in the standard AutoCare data model. The result is that all ACES Application objects beneath the selection(s) (either as child objects or via links) are exported. For more information, see the **AutoCare ACES Application Exporter** topic within the **Automotive Reference Guide**.
- **AutoCare PIES 6.5 Exporter:** Used to export parts data in PIES 6.5 format. The exporter defaults to exporting data in the standard AutoCare data model, but configuration options are also available to export data in PIES format from an Own model. The result is that all PIES objects beneath the selection(s) (either as child objects or via links) are exported. For more information, see the **AutoCare PIES 6.5 Exporter** topic within the **Automotive Reference Guide**.
- **NAPA Application Exporter:** Used to export application data in NAPA Application format. The exporter requires that applications be stored in the standard NAPA data model. The result is that all NAPA Application objects beneath the selection(s) (either as child objects or via links) are exported. For more information, see the **NAPA Application Exporter** topic within the **Automotive Reference Guide**.
- **NAPA Asset Reference Exporter:** Used to export a full digital asset reference file in NAPA format, which links a part number to an image.
- **TecDoc Supplier Data Exporter:** Used to export a specified supplier's parts data in the supported TAF format. By default, data within the standard TecDoc data model will be exported, but configuration options are available to export data within an Own data model using the supported TAF format. The export will contain the specified supplier data (either as child objects or via links) beneath the object type(s) configured within the exporter.

Accessing Automotive Exporters

The individual processing of each export is of course different, but the way a user initiates and manages the exports is the same.

Each exporter can be accessed by using the workbench File > Export menu (as shown below).



Once the Export Manager dialog displays, then the format can be selected.